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B. MORTON JONES

S. Moore

THE

SOUTHERN CULTIVATOR,

A MONTHLY JOURNAL,

Devoted to the Interests of Southern Agriculture,

AND

DESIGNED TO IMPROVE BOTH THE SOIL AND THE MIND;

TO

ELEVATE THE CHARACTER OF THE TILLERS OF THE SOIL,

AND TO

INTRODUCE A MORE ENLIGHTENED SYSTEM OF AGRICULTURE.

ILLUSTRATED WITH NUMEROUS ELEGANT ENGRAVINGS.

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I See Terms on Cover.

Plantation Economy and Miscellany.

THE STUDY OF MANURES.

A late number of the *Sandersville Georgian* makes the following statements:

"There has been quite an extensive outlay among our Hancock planters for Guano to apply to cotton, the past season, one gentleman expended the handsome sum of \$7,000 for this single fertilizer alone. Last year it paid well it seems, this year it pays over the left shoulder. The guanoed cotton has suffered more with the rust than any other. We still hold to what we have heretofore enunciated, that, the purchase of Guano two years hence will be much smaller than now. Purchased in small quantities, and applied judiciously, to particular classes of lands, in moderate quantities and especially to winter crops we think it will pay then a half dozen years together; but on summer crops, a decided failure of our crop in three or four years takes off all the profits.

"Last fall we applied 185 pounds of guano to an acre of wheat at a cost of \$7.40. The wheat grew off finely, outstripped the rest of the field, and ran up nearly a foot higher; but the manure seemed nearly spent, and made but a small head. The result was, just about enough overplus to save us from loss, leaving the land, in our opinion, poorer in salts than the surrounding acres, for the growth of grass and weeds is not more luxuriant than in the rest of the field. We took off of that acre about 1200 pounds more than we put on of valuable salts, which, in our humble opinion, is obliged to tell in a series of years."

It by no means follows that, if one removes 1200 pounds of wheat from an acre a year, (no matter for what length of time), more than he applies in manure, his soil must be impoverished by the operation. Yet, if he uses only Peruvian guano, bone dust, or "ammoniated super-phosphate of lime," the final exhaustion of the cultivated land so treated may be reasonably expected. If guano, and the phosphate of lime were perfect fertilizers, they would equally enrich the soil forever, precisely as good stable manure is known to do; but they are special and partial manures, which furnish to growing crops only a part of their necessary mineral food. Now, as a part of a thing can never be equal to the whole, the commercial fertilizers named are essentially defective for the due nourishment of all agricultural plants in all soils.

It is true that they will often hit, and give a good immediate return; but this is poor evidence of their value.

The live stock of a farm subsist on the vegetable products of the land, and, therefore, their excrements are precisely adapted by nature to give back to the soil those elements of plants which it furnishes and parts with in their growth. The sea-birds whose excrements form guano, subsist not on the seeds of land plants, but on flesh and bones of fish and other marine animals. Their excrements, therefore are rich in bone earth, and rich in nitrogen, (two important elements of fertility) but poor in potash, soda and magnesia. Nearly one-half of the ash of the seeds of wheat, corn and cotton, (our greatest staples) is made up of the two ingredients, potash and magnesia. As guano fails to supply these constituents to the crops named, the soil must furnish them; and when from the long use of super-phosphate of lime or guano, one has exhausted the potash and magnesia in his old fields, their sterility is far more hopeless and forbidding than it would have been had a wise system of tillage and husbandry been earlier adopted. In a word, if commercial and special manures are used at all, it should be with a view to the permanent improvement of a landed estate—not to rob it of those costly alkalies, without which no crop can be grown.

The Patent Office Reports have done and are still doing great injury to the farming interest of the whole country, by scattering broadcast over it exaggerated statements in favor of new things and fancy manures. Speaking of "Columbian or Bird Island Guano" in the report for 1854, page 95, Mr. BROWNE says: "From careful analyses, it has been ascertained that this substance is by far the richest source of phosphoric acid for the farmer yet discovered, as it contains eighty-four per cent. of dry super-phosphate of lime." On page 97, in the same article, in describing the general features of all guanos, Mr. B. says, "they invariably contain feathers and comminuted shells; water of course; organic matter, always; crystallized gypsum, never; carbonate of lime, commonly; phosphate of lime, always; super-phosphate, never; and nitrogen or ammonia, invariably."

It is obvious that both of the statements in regard to the super-phosphate of lime cannot be true; while the farmers of the country who read this official document are

left wholly in the dark whether either statement is true or false.

In summing up the general merits of guano in the last paragraph on the subject the reader is told that "Peruvian guano is, unquestionably, the best possible manure for all plants that require manure at all, provided the soil is kept open by digging in leaves, vegetable rubbish, &c., from time to time."

We should not notice errors like the above, although widely circulated at the public expense, did we not know that they foster the annual expenditure of millions of dollars for special and defective manures, which, instead of improving the farming lands of the United States, will leave them worse than they now are, and tend to bring both agricultural books and agricultural science into disrepute with the people. These books must adhere, at all times, to the *truth*, if they would have and perpetuate a good name. The false and pernicious teachings of books and of journalism are likely to prove the greatest curse of the age in which we live.

The economical production and wise use of manures on the farm are in themselves matters of great importance; but the difficulty lies in persuading cultivators of the soil to study the subject and science. It is this opposition to careful and patient study which throws them into the hands of quacks and sharpers.

So far as agricultural plants are able to obtain their aliment from the surrounding atmosphere, and from water, they need no food in the shape of applied manure. On most river bottoms, water supplies mainly, if not entirely, all the elements of fertility not furnished by atmospheric gases. Hence, the critical investigation of the solvent powers, and movements of water over the surface of the ground, and through all the upper strata of the earth's crust, can alone give one a just conception of the principal sources of plant food, and of the prolonged fruitfulness of arated fields. It is the duty of the farmer to husband every fertilizing element in his soil; for such elements are in fact his best and cheapest manure. To do this with skill and the highest success, he must learn to see things precisely as God has made them. By cultivating his acquaintance with the laws of nature in reference to the annual growth of agricultural plants, the good husbandman becomes not only a wise man, but a sound philosopher. Whether he plows, plants, rears and breeds stock, or cultivates fruit alone, all his operations will be governed by fixed principles, dependent not on tradition, but the heaven-created relation of things. To produce manure one needs a critical knowledge of the relative value of each element that enters into its most perfect and complete aggregate. Not many of those who manufacture manure for sale, nor of those who purchase and use the same, possess this useful information. The whole business is very much like the uncertain steps of one blind man leading another through the devious course of a narrow and perilous path. Science alone can open the eyes of both parties and enable them to see their way clearly. To the farmer, the manufacturer, and the merchant, an increase of knowledge is the one thing needful. Each should understand better the wants of the other, as well as his own professional duties. Let the manufacturer and merchant give the farmer a cheaper and better manure than he can make at home, *if they can*. On the other hand, let the owner and cultivator of the soil give his best thoughts to the consideration of the ways and means at his command for enriching his farm, and supplying the merchant and manufacturer with the pabulum on which they subsist, with a large and satisfactory profit to him self. Within his reach, bountiful Nature has placed her

inexhaustible resources; and a small increase of knowledge will enable the farmer to use these with equal honor to his high calling, and benefit to mankind at large.

L.

GRASSES AND FORAGE CROPS IN TEXAS.

The culture of forage plants is an essential part of a good system of improved independent agriculture, without which really no perfection in this latter is possible. It is very properly remarked, in the Patent Office Report of 1855, p. xii, that already in old times, Cato declared the best system of farming to be "*lene pascere*;" translated, to graze well, or to procure food for cattle. This may, indeed, be called the good part of farming.

The last three years have shown that even the natural sources of food for cattle in Texas—the prairies, were not sufficient to keep cattle from starving and perishing, particularly where the free range for cattle was overstocked, as in the more settled parts of the country; and the complaint in such parts was frequently heard, "the range is getting too bad for cattle."

It may be seen, on some reflection, that there is something wanted yet in the system of agriculture followed till now, which, if not remedied, together with the increase of population and stock of cattle, and the eventual return of similar unfavorable years and seasons, might bring on the same kind of hard times and wants—possibly even to a greater degree.

The increased culture of wheat and other grains, and the experiments with Sorgho and different other plants, show that the necessity for more varied culture is recognized in general. The whole can be comprised under the head of forage crops, and their proper introduction into the agriculture of the State. It shall be tried here, to show, first, the influence which a proper culture of forage plants can have on agriculture, and the advantages it promises, and afterwards, how such a culture may be put into practice, and what kinds of forage plants are probably to succeed best in the climate of Texas, which, particularly in the Western part of the State, through the frequent drouths, acts very unfavorably on many crops, which would succeed well in other States.

Forage crops afford the principal means to procure and to fertilize and improve the soil by rotations. Manures and fertilizers of all kinds, properly applied, are the chief levers of agriculture, without which, soils become gradually exhausted and impoverished, and make farming unprofitable. A good rotation of crops, which is made possible only with the help of suitable forage plants, facilitates a greater variety in grains and fodder raised, produces better grain crops, and secures the farmer against want and total failures in bad years and seasons; and the remains and roots of one plant prepare the ground for the better production of a following different crop, as plants of the same genus and family cannot, on an average, be raised successfully for many years, without interchange on the same piece of ground.

A rotation of crops, comprising the forage plants, with the production of manure and fertilizers, makes possible the introduction and extension of fruit culture, and is indispensable for the improvement of horticulture in general. But the greatest advantage to be obtained from a suitable culture of forage plants, as means of good feeding, and especially also of grasses, will consist in the improvement on the different breeds of domestic animals and the products drawn from them, which point requires to be treated at some greater length.

The prairies of Texas form the most considerable natural riches, as means of cattle raising; and these natural pastures, combined with a suitable climate, made stock raising till now, the most important and easiest branch of agriculture in the State. But this natural supply will

only be sufficient for a limited number of cattle, and if overstocked, as happens where the settlements are become more numerous, the pastures, together with the cattle, will decrease in value, if left without the proper artificial help, as will be considered in what follows:

The natural pastures consist of a variety of native grasses—some coarser, some finer and better, but less of the latter—mixed with other plants and weeds, some fragrant and aromatic, and some with unpleasant smell, some estable, but the greater part avoided by cattle, which prefer the grasses as their most natural food. Now, where a range is overrun with cattle, they will first eat up all the good grasses, and leave such plants untouched, as may be called weeds. The consequence is, that year after year, the good grasses are no more allowed to ripen and drop their seed, but the weeds the more so, and that these latter will spread and multiply—and the pasture gets bad, as is very natural—so that in the neighborhood of towns and settlements, large tracts of prairie, and even fenced pastures, a few years ago covered with high grass, are now nearly bare in certain seasons, or composed in 9-10ths of their vegetation, of weeds, with hardly one part in ten of good grasses.

The nature of domestic animals, as milk and beef cattle, horses, sheep, goats, hogs, and also poultry, is such, that they want a certain amount of food in proportion to their bodily weight for mere subsistence, without increase or produce of any kind, without which supply they would die, and which, according to experiments made on model farms in Europe, with horned cattle, has been estimated at about one pound of average hay, or its equivalent in other food, for every 60 pounds of bodily weight of the animal, for one day; while to their complete saturation, the same cattle will consume about double the quantity, or one pound of good hay, or its equivalent, for every 30 pounds of bodily weight, every day. Now, as much more as a domestic animal will consume in food, over and above the quantity necessary for subsistence, or to keep alive, without loss, so much more in proportion will be its produce, or use in some way; the surplus of food, or productive food, above what is wanted for subsistence alone, producing either milk with cows, or bodily increase with young cattle, or fat and meat with grown cattle, or labor with draft cattle, or progeny of young animals, or eggs with poultry; or it may be consumed and wasted in running far about for food on poor pastures, or to resist the inclemency of the weather in want of shelter. If use is exacted without corresponding food, the cattle will get poor and fall off in flesh. It has been estimated from the same experiments that every 10 pounds of productive fodder, in hay value, (above the subsistence) produce about 10 pounds of milk with a milking cow, or one pound of bodily weight in growth of the animal when young or being fattened. It is farther in the nature of domestic animals, that improved breeds can only be kept up by proper feeding, besides the breeding, so that the natural qualities can freely develop themselves; a good breed of milch cows for example, require a certain quantity of suitable food, to preserve their milk producing quality. In consequence of these natural conditions, if a milch cow, having a calf to nourish, does not find sufficient food or pasture, she will get poorer, will furnish only a small quantity of milk, if milked, and the calf will be poor, while another cow of the same quality, with plenty of food, or good pasture, will keep in good condition, and improve even, will nourish a calf well, and besides, give three or four times as much milk as the former. Cows in Texas commonly want about half of the good season to be restored again to good condition, and enabled to resist the subsequent bad season; and so there is only a short time left, during which they can be of full use, and without their great capacity to resist starvation and neglect in bad seasons. Texas cattle could not endure what they often do,

As, therefore, the milk producing quality in good cows, can only be preserved and developed by a continual sufficiency of food, so it is more or less the case with all good qualities in breeds of domestic animals. Food for mere subsistence can bring no profit, or produce nothing; but good and sufficient feeding can bring the highest possible profit, if properly applied. Improved pastures and forage crops will furnish essential means to develop and preserve good qualities for use, in cattle, for dairy produce, for flesh, fat, labor and raising of young stock.

The culture of forage plants may be practiced in two different ways: one is to improve the natural pastures, and prepare good new pastures, by sowing seeds of good grasses and other forage plants, which can be mowed for hay, or grazed and used as pasture, and by extirpation of weeds and dressing of the ground; and the other way is to bring suitable forage plants into the farm rotation, to intermix between grain crops, or raise such crops as produce both grain and fodder, of which ways we shall treat more in detail.

With regard to the natural growth of forage plants in Texas, there are in particular, many excellent native grasses, as good, and better for the climate than Blue-Grass, Timothy, Ray Grass, and others in their respective countries. A collection of such native grasses, made in limited circuit, from March till July, shows more than fifty different species, of mostly good grasses, besides several species of clovers, vetches and lathyrus; some of the grasses low, and some growing tall, some blooming early and some later in the summer and fall, and many more besides, are remembered as seen in other places, so that there is a sufficient variety of good native grasses for culture. The best of these compose, commonly, only a small part of the prairie grasses, and are rather scarce, while some coarser kinds, besides weeds, make up the greater part of the prairie vegetation. To judge from appearance, there are among these native grasses species of *Bromus*, *Holcus*, *Poa*, *Festuca*, *Phalaris*, *Agrostis*, *Alopecurus*, *Paspalum*, *Panicum*, *Cynodon*, *Aira*, *Avena*, *Hordeum*, *Friticum*, *Andropogon*, and others. As an experiment, one species of these native grasses of the genus *Phalaris*, or Canary Grass, was cultivated since two years, and proved to be an excellent forage grass, fit for winter pasture and hay making, ripe enough to be cut in April already, of a growth similar to wheat or timothy, very much relished by cattle, green and dry, and making a soft long hay of fragrant smell, if stored up; it may be called Texas Canary Grass. Several others, of the native grasses seem to improve in a similar way, if cultivated. Among these are the common Musquit Grass, and species of *Bromus* and *Panicum*, and a mixture of seeds of different species and genera of grasses, sown in the fall, would, no doubt, produce good pastures and meadows. A collection of seeds of all the good native grasses of Texas, and their propagation by separate sowing, in order to obtain seeds for more extensive culture, would, no doubt, prove very useful, for the purpose of improving pastures. The capacity of the soil and climate of the State, to produce these grasses, and their existence and adaptability for improvement by cultivation, constitute a mine of riches, which can only be rendered useful by culture, but must be without value, if not developed in the proper way, although for intensive agriculture, these are of more value than the natural advantages of the prairie.

Cultivated grasses, and also clovers, are the most necessary and natural food for domestic cattle, and the good grasses will not grow in sufficient quantity and quality without artificial aid; other forage plants are more or less only surrogates of the grass family. The use of cultivated grasses is able to accomplish great results for the farmer. Where labor is dear and land cheap in proportion, as is the case in this country, compared with the same in other

Europe, the culture of grass is particularly adapted to the proper system of farming. A number of grasses are in use in other States and countries, called artificial grasses, but natives of some place also, and improved by culture. Many of these are adapted to a variety of climates; yet the difficulties of the climate of Texas, particularly in its dry western portion, make it probable that the best native grasses, if found out and cultivated, will be more adapted to agricultural purposes, than the common artificial grasses in general. Among these may be named, Blue Grass, Orchard Grass, Timothy, Fiorin Grass, Herds and Oat grass, Ray grass, with others, species of different genera of grasses. The different species of Millet, Sorgho, Indian corn, and the smaller grains, as Wheat, Oats, Rye and Barley, belong also to the grass family, but from their way of cultivation, are numbered among the grain and forage crops.

Next to the grasses, some leguminous plants, particularly clovers and peas, furnish the best forage, green and dry. The forage plants, intermixed between grain crops in rotation, are numerous, and differ in countries according to the difference of climate and soil, the state of agriculture and other circumstances. Rotations of crops may comprise from two to ten, and more years, with as many or less different crops, and may be repeated and continued regularly, or changed, or carried on altogether free according to general good principles of agriculture, and the judgment of the farmer, varying in time and in plants cultivated, according to circumstances, as is more especially explained in farm books. Fallowing, every third year, was in former time introduced in Europe as a rule in the grain fields, as indispensable for good crops, because the soil refused to produce grains in succession. The buried weeds, together with the plowing done in these fallows, and the rest and exposure of the soil to the air, acted as fertilizers, and enabled it to produce some bread crops again. Forage crops and green manures were afterwards substituted instead of the fallows, because they acted in the same way, and were more profitable.

The following are plants for forage and grain crops, to be used separate or in rotations, and probably suitable to the climate of Texas, or partly proved to be so already, by experience, or worthy of trial, as being generally in use in other countries.

The *Clovers*—among these the Lucerne Clover has already proved to be hardy enough for the climate, and to stand winters and summers green, nearly without interruption, affording excellent winter and summer pasture, or making several crops of hay in one year, if kept for this purpose. In several places, where it has been planted, the stand is better now—four and five years after sowing—than in the first year, and there is a probability that it will last for about ten years or more, on the same field. The greatest difficulty is to get a good stand in the beginning, and to have it soon strong enough, beyond the influence of weeds; the fall, about the earliest fall rains, is a good time to sow it, and a clean, well plowed ground is necessary. With good rains, it will also grow well if sowed in spring; once established, the Lucerne Clover will do well and improve for many years.

The *Alfalfa* or Chilian Clover seems to be the very same plant; a sample, raised from seed of the Patent Office, and grown up to blossoms and seeds, showed no difference so far, in the whole plant, compared with the common Lucerne Clover.

The *Sunjoin* or Esparsette Clover, deserves a good trial, as it grows well in Europe on stony lands, in lime rock formations, and lasts there often 20 years on the same field, making, like the Lucerne Clover, excellent green and dry fodder; it is rather difficult to get good fresh seed.

The White Clover deserves a farther trial, as an ad-

mixture to pastures in winter, because it usually drops seed enough, if once growing, to re-appear again next fall. In summer time, white and red clover and also crimson clover, have not yet proved hardy enough to resist the dry seasons.

Of the Peas—there are several field peas used in other States, as forage crops and for green manure to be plowed in. The Chinese Prolific Pea is much praised as a forage plant, and seems to deserve a good trial.

Vetches are also used extensively in some countries, as forage plants, mixed with oats or some other grain, and cut green.

The *grains* and different *bread plants* of the grass family. Among the smaller grains, the wheat has already proved to be an excellent plant for winter pasture; rye and oats grow equally well during winter, and very probably, barley will be adapted to the climate, as it is cultivated in many dry and mountainous countries. Oats and barley deserve to be more cultivated for horse feed, instead of corn; barley is also the grain used generally to feed the horses in Arabia, which is a very dry country.

The Sugar Sorgho and Imphee varieties, and the Dourah corn, newly introduced plants, are excellent forage plants, besides their use for grain crops and sugar or syrup making, and stand drouth well. The circumstance, that the Sorgho produces a profitable crop of fodder and grain; besides the sugar contained in its juice, makes this plant very valuable for the country, and its use for sugar or syrup making practicable. Experience has also shown, that the grass hoppers hardly ever touched the Sorgo, while they ate up corn and wheat in the same fields. Different varieties of Millet are also in use as forage plants, several of which are possibly suitable to this climate.

The Indian Corn is known as the principal fodder and grain plant till now, but has proved to be an uncertain crop in very dry years. Some varieties of Early Six Weeks Corn, might be tried with advantage for early and late crops.

Of the *Crucifer* family, several species are used as forage plants; of these are the cabbages, of which a large winter cabbage, or Collards variety, makes good cow feed in winter. Colza, or Rape, is sometimes used as a green manure, and for cows in winter to feed on.

The Turnips and Rutabagas belong to this family, and are much used in some countries for cattle in winter.

The Sugar Beets and Mangelwurtzel Beets produce great crops of roots, used for cattle during fall and winter, and they seem to succeed well enough in this climate. If sown in the fall or early spring, they will grow all the summer following, and often to a very large size.

Besides these, there are several other plants, more or less in use as forage plants; among these are Carrots, Buckwheat, Potatoes, Pumpkins, Squashes, Lupines and others. The mentioned plants, with, perhaps, many others that may also be adapted to the purpose, offer sufficient variety for selection, according to circumstances. Experiments and trials, would soon bring with them the necessary experience in the culture and application of them, which, in time, may be of great benefit to the agricultural interests of the State.—*Southern Intelligencer.*

KANSAS SWEETS.—They are making Sorghum Sucré in Kansas. A letter from Leavenworth says:

I was in the Quaker settlement, some 12 miles from Leavenworth, and saw them making the Chinese Sugar Cane molasses. The gentleman boiling the molasses told me that the juice only needed reducing two-thirds to make thick molasses, full as thick as New Orleans or sugar-house. He said he could make nine gallons of molasses from seven rods of ground! One man near Leavenworth, I understand, would make a thousand gallons. It is expected to sell at fifty cents a gallon. It is engaged at that price.

FARMERS, DIGNIFY YOUR PROFESSION.

"But no one knows
How oats, peas, beans and barley grows."

[OLD SONG.]

Mrs. Editor—Having been silent a long time, by way of variety, I will endeavor to do something for your columns—I do not know what it will be, but we shall see when we get through.

For some thousands of years, the husbandman has been putting seed into the earth, and weeding and turning the soil, and anxiously watching the result. He has been trying to pry into the arena or secrets of nature. The strongest motives—self-preservation, duty, and even pride, have actuated him. His calling is the foundation on which civilized society rests, and he is conscious of it. Is he, then, the foremost man in society?—does he fill the high places? does he have the largest share of honors? Nothing of this. He is still "the hewer of wood and carrier of water" for the rest of mankind. He sees combinations forming all around him to clutch the profits of his toil, and he does not—perhaps cannot—resist. Is this his lot by an inexorable fate? If so, he must submit; he cannot help it. While others dance, he must pay the piper; while others sing, he cannot sing again in answer. But is this necessarily so, and is there no remedy? The human mind is expansive and progressive. Look to the other departments of human labor: Mechanics build bridges, steamboats, railroads and palaces; spin textile materials, and weaves them into all kinds of fabrics, and, when finished, dye them with a thousand hues. Chemistry and other sciences have lent them their aid, and they have received it. They have not turned away, or given them a cold and listless attention. They have paid them in honors, they have paid them in material substance. But the farmer turns away. He will not prove the value of their suggestions by a practical test—by trying them fairly, and reporting success or failure. No; he is, in his own conceit, too wise for that. He says, "no one knows how oats, peas, beans and barley grows." "You can't tell me"—and sings it, too.

It must be confessed the old song is too nearly true. While all other callings are advancing, agriculture stands nearly still. It is doubtful whether, in practical agriculture, we have advanced far ahead of the Romans two thousand years ago. In fact, I fear we do not equal them in practical knowledge; and I am sure we do not attach the importance to the calling, nor dignify it as they did. Then Virgil, the greatest and sweetest of poets, sung its praises; Cicero, the orator and writer, par excellence, delighted to do it honor; Cincinnatus, the dictator, left the plow and his farm to assume the supreme command, and after having been honored with a triumphant entry into Rome, as her savior, did not hesitate to return to his farm. They did not look upon the professions of law and medicine, or a clerkship in a store, as positions higher, and more dignified, than that of the farmer. They did not think the pursuit of agriculture disqualified the citizen from holding offices of honor and trust, nor degrade it by giving a preference to men engaged in the professions.

Farmers and Planters, would you dignify your calling? Would you see it honored and prosperous? Imitate the Romans. Do not degrade yourself by making a low estimate of your calling. Do not consider scientific knowledge incompatible with your business. Do not suppose there is no call for knowledge and trained intellect in the management of the farm. Be assured that what chemistry and other sciences have done for mechanics, she will do for you. Do not turn away from her suggestions, but give them a fair trial. Everything is proved by well-conducted experiment—experiment is the test; "try all things, and hold fast to that which is good." Build up an Agricultural College, and prepare your sons, not for the professions,

clerkships, &c., but to be intelligent farmers. Send a due proportion of farmers to your Legislature, and give them a fair share of the offices of profit. Show thus that you do not regard them as an inferior cast. If you will do all this, knowledge will abound, science will unfold her secret stores, and we may yet understand "how oats, peas, beans and barley grows."

FRANKLIN,

[in *Laurelville Herald*.]

THE SCIENCE OF BREEDING.

We are induced to write out and publish the leading points of a lecture on the Science of Breeding, mainly to correct the mischievous errors which give rise to legislation like the following:

"MARRIAGE OF KINDRED.—A bill has passed the House of Representatives by a vote of 36 to 52, prohibiting the intermarriage of first cousins under a severe penalty, and cutting off the inheritance of issue. The preamble of the bill asserts that many deformations of mind and of body are of congenital origin, from the practice of near kindred intermarrying with each other."—*Southern Recorder*.

Many a bill had a mistaken "preamble," and served to perpetuate false views on the most important subjects. "The intermarrying of near kindred" is no worse now than it was when the first descendants of ADAM and EVE married not only first cousins, but brothers and sisters. The whole teachings of the Bible in reference to the different species of animals springing each from a single pair, are false, or else to propagate and multiply the same from the blood of a single pair violates no law of nature. Truth is always consistent with itself; while error is ever forced to adopt conflicting principles. There is no evidence whatever that Providence was under the necessity of creating two men and two women to avoid the deterioration of their offspring by too close intermarriage; and yet their entire issue would contain only the seminal blood of four persons—compelling very close breeding in a few generations. Has this natural system of in-and-in breeding either emasculated or deformed any one species of the class *mammalia*, to which man belongs? Certainly not.

On the contrary, the most vigorous and perfect herd of neat cattle known to civilized man is seen in Chillingham Park, where all the alleged evils of the closest possible intermarriage of near kindred have prevailed for six hundred years. It was the wise and salutary instruction of Nature in matters purely physiological, in this famous English park, that enabled nature's noblemen, the Messrs. COLLING, GEORGE CULLEY, BAKEWELL, and others, to break the chains of an iron superstition, and by following nature's laws, make the farmers of all Europe and America pay tribute to their skill in the improvement of domestic animals. Of course, defects and deformities may be propagated through the agency of near kindred as well as by the intercourse of sexes belonging to different families. In all such cases, however, the error lies not in the close relationship of parents, but in pairing individuals whose constitutions, physical and physiological developments, one not adapted to each other. To study and understand these in all their vital functions and relations, gives one that clear and systematic knowledge of the subject which makes him a scientific breeder of live stock. Hitherto the world has produced but few such breeders; but such

as it has produced, have wholly disregarded the false idea that there is something in the blood of animals which renders deterioration more than probable if issue spring from parents who are as nearly related as first cousins.

What is the blood of any person or animal, but a part of the food eaten within the previous 48, or perchance, 60 hours? The blood of no father or mother was ever the same for six month in succession; and, therefore, no two children born at different times, and the offspring of the same parents, were ever so much alike as some twins have been. *CAIN* and *ABEL* differed widely in their dispositions; although neither could have had either the vices or virtues of a long line of progenitors. The different members of many a family in our own time evince as wide a discrepancy of character, whose parental blood came from the same living hearts. One child is very conscientious through life; while a brother or sister displays a lamentable want of moral rectitude. If the same blood in the popular, not scientific, use of language, produces such varient results, why talk about the blood of cousins necessarily leading to bad consequences, if mingled by intermarriage? The notion is but little short of a downright absurdity. How can the marriage of a sound man and sound woman impair the blood of either, whether they are brother and sister, first cousins, or fourth cousins? The thing is impossible, unless one gratuitously assumes vices which it were just as logical to assume in the married life of any other parties. And if the marriage of near kindred cannot impair the blood of parents, how is it possible for healthy parental blood to weaken the constitutional powers of its offspring? This, too, is equally impossible. Parents communicate deformity and imbecility to their children not because they may happen to be cousins, or their grandmothers were such, but from errors, defects and maladies which have an entirely different origin. If it were proper to use the *argumentum ad hominum*, and were the writer addressing a legislative body it would be easy to name some of the blood-corrupting poisons which eat like a cancer into the constitutions of more than one generation. It is not necessary to our argument that we point out any of the pregnant follies, vices and crimes which civilization breeds with extreme fecundity, to show that the occasional marriage of first cousins is not one of the number.

Pure blood is never contaminated by what it parts with, but by what it receives that is impure. How to judge of the quality of blood is a lesson which even legislators may study with benefit to themselves and advantage to the public. The outward signs of good breeding, of internal health, strength and purity, are almost as difficult to describe as the beauty and splendor of a sunbeam. Like the latter, they may be seen and felt, but elude the grasp of one who would weigh them in a balance. An eminent writer on the art and science of breeding neat cattle has the following remarks: "The securing of the greatest profit with the least labor in breeding, consists in procuring that breed which attain the greatest weight and maturity in the shortest time, and on the least quantity of food. How is it that some animals of different breeds,

or different individuals of the same breed, fatten faster than others? They all receive the same attention and care, food and comfort. On inspecting the subject more closely, the breeder discovers that those animals which improve fastest, are the most beautiful to the eye, and handsomely formed. Out of regard for them he has a desire to handle and fondle them, when he makes a new discovery—he finds that their skins feel agreeable to the touch, are loose and easily laid hold of. Their bodies are soft and fat and he can press his finger into the flesh, which springs back again in an elastic manner. He also ascertains the same properties in the parents of the cattle which have produced them; and when he has made observation he has made another discovery. He thereby learns that cattle possessing certain good and useful properties have the power of imparting them to their progeny. His mind having thus been awakened to the proper course to be pursued in breeding, he perseveres in the selection of the best animals, and, in the course of time, his experience and taste correct the defects that exist even in the minuter properties of his animals."

There are other points to be attended to with equal care and discrimination, but space will not permit us to cite them at length. The term "blood" as applied to neat cattle was used by BAKEWELL to designate those new breeds called into existence by him in which the most desirable properties to early maturity and easy keep had been fixed as a peculiar characteristic. Repeated and careful experiments have proved that some animals return twice the flesh for the food consumed that is obtained from others. By simply keeping young and growing animals warm and quiet, less nourishment is wasted in maintaining animal heat and muscular action, and more goes to produce tender tissues and fat; and consequently giving a better return for the grain or forage consumed. More exercise, and a larger development of bone and muscle are required in breeding stock; while something of the high keep, and fattening process should be omitted. Due care should ever be had to avoid epidemics, or diseases of whatever kind; and especially should caution be used in the application of popular remedies. We have no doubt that more cattle, horses and hogs are killed by medicine than are cured. In nine cases out of ten, Nature is the best doctor for live stock, if not for the human species also. True science teaches both prudence and moderation in dealing with so frail a thing as life. Science informs us that warmth is, to a certain extent, the equivalent to food; so that the man who keeps his stables and yards well supplied with dry leaves or straw for his stock to sleep on, saves both fodder and flesh by so doing, and adds much to the value and quantity of his manure. Good keeping and good breeding are almost synonymous terms in stock husbandry. Calves should be early taught to eat corn meal, and have a little twice a day. Sheep ought to be fed regularly with turnips, beets or carrots; each of which grow finely at the South according to our experience. Let the reader try root crops for stock, and report the result in the *Cultivator*. L.

RE-OPENING OF THE SLAVE TRADE.

EDITORS SOUTHERN CULTIVATOR—In the December number of your valuable periodical, I have read with much interest, the sensible questions propounded to you by your correspondent, Mr. Thos P. Miller, of New Prospect, Miss., upon the "Re-opening of the Slave Trade." And I shall be pleased to see answers to his queries, either from you, or from any of your correspondents.

And I should also be pleased to hear from Mr. Miller again, as I think he has taken a very sensible view of this late agitation. NATIVE SOUTH CAROLINIAN.

Columbus, Ga., Dec., 1858.

AN ITEM IN NEAT FARMING.

THERE is a slovenly practice among farmers, and some pretty good ones, of putting logs, brush, stumps, &c., &c., into the nearest branch or gully in the field. Sometimes they are put into the fence corners. Now I protest against anything of the sort. They are an abomination to a real neat farmer. If you cannot find time to burn them as they should be, then you had better make them into piles or heaps in the field, and plow round them; for after awhile you will get tired of going around them so often, and will set them on fire. Better dig pits, like the Florida man, and bury them.

Some men suffer bushes, briers and weeds to grow along the branches, and thus form a crooked, horrible looking hedge, a fit harbour for snakes, frogs, minks, and other *varmints*. Clean out those places when you are tending your crops, or after harvest.

Instead of letting the bushes grow up along the branches, a good plan is to have a strip of meadow on each side. Along the margin of a branch the grass grows most luxuriantly. A strip of meadow will catch the rich soil that washes from the adjacent fields and prevent it from being lost to the rightful owner. This is much better than to try to raise corn in the bends or crooks of the branches, where it is so difficult to plow, and infinitely better than to have those ugly crooked hedges. Brother farmer, I move that we repudiate such hedges. Who'll second the motion?—*Valley Farmer.*

TREES---THEIR USES, POETRY AND BEAUTY.

AN anonymous writer says: "How beautiful are Trees! Whether we look at them in spring, with their swelling buds and folded leaflets—in summer, crowned with bright and dancing leaves, through which the 'soft south wind' loves to wander, ever singing sweetly and musically—in autumn, dressed in garments of purple and gold,

'When fairy colors deck the painted tree,
When the vast woodlands seem a SEA OF FLOWERS'

or in winter, with their delicate tracery of twigs and branches sharply defined against the clear, cold sky—at whatever season we behold them, they are 'beautiful exceedingly,' and the man who does not prize them is blind to the loveliness of Nature."

Another writer eloquently says: "How beautiful, most beautiful of earth's ornaments are trees! Waving out on the hills and down in the valleys, in wildwood or orchard, or singly by the wayside. God's spirit and benison seem to us ever present in trees. For their shade and shelter to man and brute; for the music the winds make among their leaves, and the birds in their branches; for the fruit and flowers they bear to delight the palate and the eye, and the fragrance that goes out and upward from them forever—we are worshipful of trees.

"Under his own vine and fig-tree"—what more expressive of rest and independence and lordship in the earth! Well may the Arab reverence in the date palm, a God-given source of sustenance. Dear to the Spaniard is the olive, and to the Hindoo his banyan, wherein dwell the families of man, and the birds of heaven build their nests. Without trees, what a desert place would be our earth—naked, parched and hateful to the eye? Yet how many are thoughtless of the use and beauty of trees. How many strike the axe idly or wantonly at their roots. Above all other things in the landscape we would deal gently

with trees. Most beautiful where and as God plants them, but beautiful even as planted by the poorest art of man, trees should be protected and preserved.

"If he is a benefactor who causes two blades of grass to grow where one grew before, how much greater his beneficence who plants a tree in some waste place, to shelter and shade, to draw thither song-birds, and to bear fruit for man. Plant trees, O man, on that waste land, and be careful of those that are planted."

We do not (says the *Christian Advocate*) know the author of the above beautiful and comprehensive notice of trees; but we think its perusal will cause many of our readers to involuntarily and heartily respond to the familiar and popular language of the song of

WOODMAN, SPARE THAT TREE.

BY GEORGE P. MORRIS.

Woodman, spare that tree!
Touch not a single bough,
In youth it sheltered me,
And I'll protect it now.
'Twas my forefather's hand
That placed it near his cot;
There, Woodman, let it stand;
Thy axe shall harm it not!

That old familiar tree,
Whose glory and renown
Are spread o'er land and sea—
And wouldst thou hew it down?
Woodman, forbear thy stroke!
Cut not its earth-bound ties;
Oh, spare that aged oak,
Now towering to the skies.

When but an idle boy
I sought its grateful shade;
In all their gushing joy,
Here, too, my sisters played.
My mother kissed me here,
My father pressed my hand;
Forgive this foolish tear—
But let that old oak stand.

My heart-strings 'round thee cling,
Close as the bark, old friend!
Here shall the wild-birds sing,
And still thy branches bend.
Old tree! the storm still brave!
And, Woodman, leave the spot,
While I've a hand to save,
Thy axe shall harm it not.

MARSHALL COUNTY (MISS.) AGRICULTURAL Fair.

A correspondent of the Memphis *Eagle & Enquirer*, writing from Holly Springs, under date of Oct. 29, says:

"The Agricultural Fair now being held in this county, is deserving of notice in your paper. The exhibition has been highly creditable to our citizens. There were some ten or twelve competitors for the premium bale of cotton, and I assure you that at no other fair were more beautiful samples exhibited—far surpassing anything I saw at the Shelby county fair. In the ladies' department I never saw finer exhibitions of skill and taste. At the close of the Fair I will give you a detailed report of the exhibition and the premiums awarded.

AGRICULTURAL EDITORIAL CONVENTION.

ONE of the most pleasing events of the past month, has been the privilege we have enjoyed of meeting in this city, during a single week, some seventeen or eighteen of our brethren of the Agricultural Press, several of them for the first time. Scattered, as we are, over a wide territory, we had hardly hoped to greet in a year even, so many to whom we hold the peculiar relationship of fellow-laborers in the same enterprise, that of promoting the elevation and improvement of agricultural labor.

It was the hope of many of us that the occasion of the American Pomological Society, on September 14, 15 and 16, would furnish an appropriate season for meeting in council, not only to become better acquainted individually, but also to discuss the best means of advancing our peculiar profession. The former end was, in a measure, accomplished, though the latter was partly interfered with by the programme of the Pomological Society, as the meeting of that body commenced at 9 A. M., and lasted until 10 P. M., with only a short recess at 1 and 5 o'clock for a hasty repast. Furthermore, our fraternity seemed to be in so great demand as *workers* that a large number of those present, were kept constantly occupied on various fruit committees all the time the Pomological Society was not in session. However, two meetings were held, at which considerable interest was manifested, and several suggestions were made by different gentlemen, as to the importance and the power of the agricultural press, especially if there could be any degree of concert of action; also the best means of bringing about that end. There was a general desire that arrangements should be made for a future gathering of all persons connected Editorialy with Agricultural and Horticultural Journals.

After due consultation and interchange of opinions, it was unanimously resolved to appoint a President and Secretary and a Joint Committee, who should consult together and select the best time and place next season, and issue a call for a general convention. The time and place were left unsettled, as it was thought that these might best be fixed in connection with some other prominent agricultural or horticultural gathering. The following officers were chosen:

President—H. P. Byram, Editor *Valley Farmer*, Louisville, Ky.

Secretary—Orange Judd, Editor *American Agriculturist*, New York City.

General Committee—Hon. Simon Brown, Editor *N. E. Farmer*, Boston, Mass.; Mason C. Weld, Editor *Homeside*, Hartford, Conn.; Joseph Harris, Editor *Genesee Farmer*, Rochester, N. Y.; Thomas Brown, Editor *Ohio Farmer*, Cleveland, Ohio; J. W. Hoyt, Editor *Wisconsin Farmer*, Madison, Wis.

A paper was received and read from J. W. Hoyt, Editor *Wisconsin Farmer*, regretting his unavoidable absence, heartily sympathizing with the objects of the convention, and proposing united action with reference to various important enterprises, such as the donation of public lands, by Congress, for the establishment of Agricultural Schools and Colleges, etc. Other gentlemen, who were detained at home, as many were, by distance, and especially by the numerous local Exhibitions occurring at this season, sent in their regrets at being absent, and their best wishes for the success of the enterprise.

There are now *thirty-eight* journals in this country, including two in California and one in Oregon, which are, in the main, devoted to agriculture and horticulture, and so wide is the field that there is abundant room for as many more, with a ten-fold circulation for each of those already in existence. We heartily respond to the sentiments expressed at the meeting by Mr. Redmond, of the *Southern Cultivator*, that there should be no jealousies or

bickering or contests, between the individual members of the fraternity.

Our calling is a noble, an important one; let us labor, each in his own way and sphere, but with a united purpose to elevate our profession, and promote in the highest degree, the growth and development of the fruits of the soil.—*American Agriculturist*.

PEDI戈REES OF DEVON CATTLE.

Master Birthday []: calved January, 1856, bred by L. G. Morris, of New York, the property of R. Peters, Atlanta, Ga. Sire, Frank Quartly (205), bred by John Quartly, of Devonshire, England. Dam, Birthday (38), bred by John Ayre Thomas, of Rose Ash, Devonshire, England.

✓ *Red Oak* []: calved August, 1857, bred by and the property of R. Peters, of Atlanta, Ga. Sire, Pampero [✓], bred by R. Peters. Gr. sire, imported Raglan (286), bred by J. Tanner Davy, of Devonshire, England. Dam, Rena (1012), bred by Geo. Patterson, of Maryland, sired by imported Herod (214). Gr. dam bred by George Patterson, sired by Eclipse (191).

Commodore []: calved May, 1858, bred by R. Peters, of Atlanta, Ga., the property of Geo. Jessup, of Madison, Ga. Sire, Master Birthday [], bred by Col. L. G. Morris, of New York. Gr. sire, imported Frank Quartly (205). Dam, Lucy [], bred by Geo. Patterson, of Maryland, sired by imported Norfolk []. Grand dam bred by Mr. Patterson, sired by imported Eclipse (191).

✓ *Norfolk* (266): calved in 1851. Imported in 1852 from the herd of Mr. Blomfield, of Norfolk, England, by Mr. G. Patterson, of Maryland, United States. Sire, Sultan, (122); grandsire, Northampton (86); dam, a very superior milking cow, owned by Mr. Blomfield.]

✓ *Hero* []: calved May, 1858, bred by and the property of R. Peters, Atlanta, Ga. Sire, Master Birthday [], bred by Col. L. G. Morris, of New York; grandsire, imported Frank Quartly (205). Dam Villette [], bred by Geo. Patterson, of Maryland; sired by imported Norfolk []; grand dam bred by Geo. Patterson; sired by imported Eclipse (191).

✓ *Prince* []: calved May, 1858, bred by and the property of R. Peters, Atlanta, Ga. Sire, Master Birthday [], bred by Col. L. G. Morris, of New York; grandsire, imported Frank Quartly (205.) Dam, Lilly [✓], bred by R. Peters; sired by Napoleon (261); grand dam, Laura (828); sired by imported Herod (214).

✓ *Champion* []: calved May, 1858, bred by and the property of R. Peters, Atlanta, Ga. Sire, Master Birthday [], bred by L. G. Morris, of New York; grandsire, imported Frank Quartly (205). Dam, Blossom []; sired by Bloomfield (148), bred by Geo. Patterson, of Maryland; grand dam, by Exchange (197), bred by George Patterson.

✓ *Fulton* []: calved August, 1858, bred by R. Peters, of Atlanta, Ga., the property of B. H. Warren, Esq., of Augusta, Ga. Sire, Master Birthday [], bred by Col. L. G. Morris, of New York; grandsire, imported Frank Quartly (205). Dam, Rena (1012), bred by Geo. Patterson, of Maryland; sired by imported Herod (214); grand dam bred by Geo. Patterson; sired by imp. Eclipse (191).

The numbers in parenthesis refer to the numbers by which each animal is designated in "Davy's Devon Herd Book."

The brackets without numbers are annexed to the names of such animals as will be entered in the 3d vol. of the Devon Herd Book.

Enjoy the blessings of this day, if God sends them; and the evils bear patiently and sweetly. For this day only is ours; we are dead to yesterday, and we are not born to morrow.

AIR--HOW INVALUABLE TO THE SUCCESSFUL Husbandry of the Soil and its Produce, Animal and Vegetable.

In our former observations on this subject we directed attention to a general view of it, promising to notice on a subsequent occasion the individual case of soils, plants, and animals, under the different atmospheric circumstances in which they are found. We now propose the fulfilling of that promise.

In doing so, let us examine wheat, grass, and turnips grown in different soils, climates, and under different systems of cultivation.

Under the first, as to soil, the practical question at issue may be thus stated:

How far does the atmosphere affect the quality of wheat on any individual soil? That the nature of the soil and its atmosphere influences the composition of both the grain and straw of this cereal, is a fact with which farmers have been familiar from time immemorial. To what extent, therefore, is this dependent upon atmospheric phenomena? Calcareous soils, for example, and others abounding in organic substances, yield wheat containing a larger portion of gluten or nitrogenous matter, than do soils of opposite quality. How much of this nitrogen is due to the nitrogen of the atmosphere, and how much to that of the manure incorporated with them?

In the case of a calcareous soil, the decomposition of lime by means of air and water obviously works up the oxygen of both the latter, liberating their nitrogen and hydrogen; while they, uniting together under favorable circumstances, form ammonia ($N 1 + H 3$). In this manner 82.515 lbs. of nitrogen, and 17.455 of hydrogen, would make 100 lbs. of ammonia, requiring the decomposition of 107.2 lbs. of common air and 167 lbs. of water. Now, as this quantity of ammonia is a sufficient dose for two acres of land, yielding an ordinary crop of wheat, it will readily be seen that the decomposition of this quantity of air and water over such an area, the liberation of this quantity of nitrogen and hydrogen, and their uniting together, is the most likely source from whence the growing wheat plant derives a large portion of its nitrogen.

Pure ammonia, however, cannot thus be formed in a calcareous soil, as it always combines with other substances; but this does not in the slightest degree affect the question at issue, for it signifies little what salt of ammonia may be formed, so long as it is formed and consumed by the plant.

In soils, again, rich in animal and vegetable matter, a similar result takes place during the process of decomposition. As in the case of calcareous matter, air and water are necessary to effect this change, during which the oxygen of both produces, with the vegetable matter, carbonic, ulmic, and other acids, while the nitrogen and hydrogen liberated from ammonia.

If, however, we suppose such a vegetable soil improperly drained, so that decomposition takes place in the absence of air, or a sufficient supply of it, then the vegetable matter and oxygen form the carbonic and other acids; but the hydrogen now unites with the carbon, forming carbonated hydrogen, or the gas of low-lying marshy lands—a gas alike injurious to animal and vegetable life.

Wet marshy soils of this class are, perhaps, the worst for wheat culture of any, being deficient of ammonia to supply nitrogen for the manufacture of gluten. For the successful growth of this cereal, proper draining and aeration are essential requisites. A certain degree of moisture is, no doubt, necessary to supply hydrogen; but in our moist climate, few crops require so little rain as wheat, while none require a larger supply of atmosphere, beans and peas excepted.

On sandstone and clay soils, naturally deficient of organic matter, and where the inorganic is less subject to

decomposition, on the contrary, wheat seldom yields very abundantly, while the quality of the flour is inferior, owing to the small per centage of gluten which it contains.

This deficiency of crop, and the inferiority of quality, are thus accounted for: In the first place, the inorganic matter being less subject to the action of oxygen than limestone, the decomposition of air and water is consequently also less, so that the supply of naturally manufactured food, both organic and inorganic, is insufficient to supply the wants of a healthy and luxuriant vegetation. And in the second place, the decomposition of air and water being less, the manufacture of ammonia is also less, and, hence, the formation of gluten.

In the case of grass crops, results are similar, the produce of dry calcareous or vegetable soils being better for rearing and fattening stock, than that of others of a different quality not so subject to the decomposing influence of the atmosphere. We might quote many examples from the rich grazing districts of England and Ireland, in proof of this proposition, were it necessary.

In low-lying, marshy grass lands, however, the example is widely different from that of wheat-land, in more respects than one. In the first, for example, luxuriant crops of an inferior quality are often produced by this class of soils; and although not equal to straw as food for cattle, they make, nevertheless, excellent manure. As such we have used immense quantities, both in a green state and dry, for littering stock, and always had fine crops.

For pasture they are not well adapted; the marshy gases arising contaminating the atmosphere, and thus injuring the respiratory functions of stock, or otherwise affecting their health. In corroboration of this, we shall mention two examples; In the first, large tubular swellings break out, principally about the neck and chest of cattle, the malady generally terminating fatally. And not only are they affected thus when grazing, but also when consuming in the straw-yard, alike in summer as winter, the produce of such lands, as turnips, hay, and straw. In the second example, cattle never thrive well; while they change their color, whatever it may be, to a "dirty dun."

Some low-lying wet grass lands, we must observe, are exceptions from the above examples, the produce being rich in quality and abundant in quantity. This is owing to the water not being stagnant; but rising to the roots of plants by capillary action, and bringing a sufficiency of lime, alkaline, and other salts, in solution, to counteract acidity and supply the necessary quality of food which otherwise would be wanting. The grass, however, owing to the decomposition of air being less (and consequently the produce of naturally-formed ammonia), is generally deficient of nitrogenous element, and, therefore, is better adapted for yielding butter than cheese or butcher-meat; but in practice this deficiency is easily supplied by the addition of a little pea or bean-meal and oil cake.

Like grass, the turnip delights in a rich, well-drained, calcareous soil, or one full of vegetable matter, with a moist climate, both top and bottom having a liberal supply of air. An abundance of pure air is essential for the growth of this invaluable plant; for without plenty of room, a well pulverized soil, and an atmosphere free from deleterious matter, a heavy crop cannot be grown. At the same time more water appears to be assimilated in the process of vegetation than nitrogen from the atmosphere; thus proving that as the turnip is a large consumer of ammonia—a great decomposer of air and water—nitrogen gas must be given off from its leaves.

With regard to climate, it is much more diversified than is generally imagined. In common conversation we talk of the north, south, east and west, as cardinal distinctions; but when we come to examine the details of even a single province, let it be situate where it may, how dif-

ferent is the atmospheric circumstances of one farm from that of another! and how unlike are the results on animal and vegetable life!

Such diversities are to be attributed no less to geological than geographical causes. When we enter the field, may it not be said, How little is yet known of the "chemistry of common life!" for here the undivided labors of the farmer are directed to one continued process of decomposition! as if man had but one grand object in view—viz., to pull down as fast as Nature builds up the animal and vegetable kingdoms! Nor are results to be measured by his own individual efforts; for mechanical appliances without number are now being brought to bear upon the soil, exposing it more effectually to the decomposing influence of the atmosphere, in order to increase both produce and consumption.

This decomposition of the soil and its produce must affect the contiguous atmosphere less or more, and hence the quality of the crop. The smell of newly plowed land is sensibly felt, for instance, on entering the field, and from different qualities of soil it is equally different. From time immemorial, plowmen have experienced certain localities more healthy than others; and the difference is obviously to be attributed to climate, as affected by volatile matter given off in the process of decomposition.

We might here enter into a large amount of detail, quoting examples from different geological formations, did our limits permit; but this blank we shall leave our readers to fill up themselves. If they take up a clod and break it, they may easily detect what the smell or volatile matter given off in the atmosphere is composed of. Or if they can analyze it, they may also be able to say what will be liberated in the process of decomposition. All that we shall add is this: Were every farmer in possession of the analyses of the different qualities of soil he cultivates, and volatile matter given off in the process of decomposition, it would prove an interesting source of information to him; and when a few sovereigns would obtain it, why should it not be had?

The atmosphere, again, is sensibly affected by different crops, and that differently at different stages of their growth. Who has not felt, for example, the intoxicating aroma of peas, beans, and clover in flower?—the fragrance of the meadow during hay-making?—the pungent smell of turnips when growing rapidly?—and that of a field of barley behind a reaping machine in harvest? These, although prominent examples, are only a few of what experience is familiar with, and which might readily be quoted for the sake of illustration.

Our next topic is cultivation. How does it affect the influence of the atmosphere upon the soil and its produce?

With regard to the soil, it is only when accompanied with a sufficiency of moisture that the atmosphere can enrich it. If divested of water, the searching effects of a summer's sun would render our fields as barren as the deserts of Arabia; but with the requisite supply of this invaluable fertilizer, the rays of the sun are powerful auxiliaries to the enriching of them. To "keep in the sap" and "out the drought," and yet admit the free circulation of the atmosphere, has long been acknowledged one of the cardinal points in good farming.

Deep culture and drainage, again, by increasing the capacity of the soil for holding air, add greatly to the means of enriching it. Probably more of the success of the Lois-Weedon system depends upon this, than to the mere following of the "intervals" between the beds of wheat or other kinds of crop; so that the question may yet be raised whether equally deep culture, with proper attention to seeding the ground uniformly, may not produce equally beneficial results. But be this as it may, the chemical effect of air and water in a greater depth of soil

is manifest from what has already been said; for the decomposition of the soil, air, and water (and hence the formation of soluble matter and ammonia) will be directly as this depth—twice the depth of ordinary cultivation by the plow producing twice the quantity of fertilizing matter, while from the greater depth there will be less escape or waste of volatile substances.

The free circulation of air, again, access of light, and rays of the sun, among growing crops, are questions of equal importance. In this respect wide drilling is highly advantageous, while intervals may produce a more healthy and free circulation. But much of this will depend upon special circumstances; for clean flint straw on the wide-drill system may admit of a freer circulation than coarse flabby straw deficient of silica with wide intervals.

Many exceptions may, no doubt, be taken to the wholesale manufacture of ammonia, as advocated, from the nitrogen set free in the decomposition of air, uniting with the hydrogen of water when undergoing a similar process; but granting them to be true, the practical question in the field is obviously to reduce exceptions of this kind to the common rule. This may be done in various ways—as by draining; deepening the soil; adding clay, calcareous, and vegetable matter to sandy lands, to retain moisture and produce decomposition; sand, vegetable, and calcareous matter to clay lands, to promote the free circulation of the atmosphere, and its decomposition along with that of water; in short, anything which will promote the decomposition of air and water in the soil, so that the nitrogen and hydrogen set free shall be united so as to form ammonia. We see no other way of accounting for the extraordinary fertility produced by improvements of the above kind, than by working up the nitrogen and hydrogen set free in the process of decomposition into ammonia, or some of its compounds, as food for plants. The decomposition of farmyard manure in the soil, and even clean straw in clay lands, obviously works up the nitrogen of the atmosphere and hydrogen of water into matter more fertilizing than their own constituents will satisfactorily account for. The advocates of exclusive liquid manuring, overlook the economy of decomposing vegetable matter in the soil, and the additional supply of ammonia derived from this source by means of the nitrogen and hydrogen liberated in the process.—*British Farmer's Magazine.*

MEASURING CORN IN BULK.

AN exchange paper gives us the following
INVALIABLE RULES FOR MEASURING CORN IN THE CRIB.
—If measured in feet:

1st. *Shucked Corn*—Measure the length, width and depth of the crib in feet; multiply these three dimensions together and their product by 8; then cut off two figures to the right; those on the left will be so many barrels, and those cut off, so many hundredths of a barrel.

2nd. *Unshucked Corn*—Multiply the three dimensions in feet, as in rule 1st, and their product by 5 2-3; cut off two figures to the right, and the result will be barrels and hundredths, as in rule 1st.

If measured in inches:

3d. *Shucked Corn*—Take the dimensions in inches and multiply them together; take one-half of the product and divide it by 1250 and you have the bushels of shelled corn, which divide by 5 to reduce to barrels.

4th. *Unshucked Corn*—Multiply the dimensions as in rule 3d, and take one third of their product, and divide it by 2150 the result will be as in rule 3d.

These rules have often been put to the most critical test by the most thorough as well as the most practical mathematicians of the south-west, and the people using them rely upon their being accurately correct. Preserve a copy for use.

TRANSFERRING BEES FROM ONE HIVE TO Another.

When bees have existed several years in the same hives (says the *Rural American*) it is frequently advisable to transfer them to new ones, which operation may be performed as follows:

If the old hive is a common one, any besides our cross-bar hive, it must be turned bottom upwards on a pleasant day, about a week after the issue of the first swarm, (in June in this latitude) an empty hive placed upon it, and a sheet tied around the junction of the two hives, in order to close the passages, and darken them. Then take a rod in each hand, and rap smartly upon the sides of the lower or full hive, for 15 or 20 minutes, and at the end of that time the most of the bees will have ascended, with their queen, into the empty hive, and clustered at the top. The new hive is now to be placed in the position where the old one stood, while you remove the latter a few feet, and proceed to cut out the combs, and with a soft wisp of grass brush off the bees that adhere to the combs directly in front of the new hive, as many young bees, unable to fly, will be found upon them, and for the accommodation of such, a board should be placed against the new hive, one end at the entrance, and the other resting on the ground, and the bees should be brushed off upon this board and they will enter the new hive immediately,

We recommend allowing one swarm to issue before driving, because you are sure of one prosperous family in the swarm and probably two, if the old stock does well; whereas, if you drive before any swarm issues you will get no swarms, and the old stock or family may desert their new tenement, in which case you lose all.

In no case should a family of bees be transferred into a new hive, when the honey harvest is not abundant, as the bees will be liable to desert their new home, and especially if near old woods in which hollow trees exist. But when the fields are covered with white clover in blossom, there is very little risk of desertion.

TOOL HOUSE.

In traveling through the country we find there are more farmers who leave their farm implements and machines exposed to the weather, after the season of their use has passed, than there are of those who have a house and "a place for everything and everything in its place."

The number of farm implements and machinery have greatly increased within the last ten or fifteen years; many of these are indispensable, at the present day, to successful farming. These require a considerable outlay in their purchase, and true economy should dictate that suitable shelter should be provided for them until the operations of another season require their use. A plow, horse-rake, or mowing machine, will be injured by exposure to the weather during one winter more than by all the wear and tear from careful usage, during the working season. Many farmers who have ample room for the storage of their tools, through neglect, leave them exposed to the weather from the time they were used one season, until they are wanted for the next. Where this is the case, a rule should at once be established and every workman be required to follow it—that as soon as an implement is done with, it is to be immediately housed. Such a rule once established will afterwards be easily maintained.

Where suitable buildings do not already exist, it will be but a small matter to erect them. They do not necessarily require to be costly, but temporary sheds are better than no protection.—*Valley Farmer.*

Not to know what has been transacted in former times, is to continue always a child. If no use is made of the labors of past ages, the world would always remain in the infancy of knowledge.—*Cicero.*

SOUND DOCTRINE.

THE following arguments, in favor of advance payments for newspapers, were advanced by the Ohio Editorial Convention:

"What would you think of a farmer who had raised a thousand bushels of wheat, and who should sell it to a thousand different persons scattered all over the State, and agree to wait a year for his pay from each of them, and if one-half of them did not pay at the end of the year, he should give them another bushel of wheat, and agree to wait another year for his pay, and thus go on year after year? How long would such a farmer escape bankruptcy? probably not very much longer than publishers of newspapers who followed such a practice. It costs an editor of a weekly newspaper as much, to supply a thousand subscribers with it for one year as it costs a farmer to raise a thousand bushels of wheat. The farmer sells his grain in bulk, and either takes the cash or a note (just as good as cash) upon delivery. The editor cannot sell his thousand papers in bulk. They are sold to a thousand different persons living in different towns in the county, and different counties in the State, and he must wait until the end of the year before he can get his payments, and then he depends wholly upon the honesty and responsibility of the subscribers, for it is impossible that he should know the character of all his subscribers. It would not pay him to go around and send around the country or State to collect his dues. It would cost more than the collection would come to."

HOGS---SLOPS---CATTLE---PEAS, &c.

EDITORS SOUTHERN CULTIVATOR—I send some valuable information to those who will follow it in practice.

Hogs salted and given copperas, ashes (hickory) and sulphur are almost certain to be healthy; but not without a little corn. If allowed to lie around quarters in old beds in the dust, they will certainly have lice, coughs and everything else.

They must not be fed on the same place until the dust is two inches thick. It will get up their noses and into their throat and cause coughing.

Sulphur sprinkled on the back will drive away lice, and tar and grease with sulphur in it, will do the same.

A teaspoonful of arsenic given to each hog will cure cholera and many other diseases.

How many of your readers have a barrel at the kitchens of house and quarter to save the "slops"—an invaluable drink for hogs and cows?

Cattle salted well—not once a week—if attacked with the disease that has killed so many, will seldom, if ever, die; and this is known to those who have lived in districts affected.

WILL PEAS KILL CATTLE, &c.?—Yes and No. Yes, if turned on a full pea field without being fed and watered before turning in, and then if allowed to stay too long at a time. No, if fed and driven out for the first two days after being in fields an hour or so in the morning and afternoon.

Peas will kill young hogs—after running in a pea field during the winter—in the spring; but will not kill old hogs; at least the shoats die faster after running in a pea-field. Why, unless the peas cause it, I do not know.

Yours, &c., JOHN O. GUION.
Benton, Yazoo Co., Miss., Nov.; 1858.

A very good sealing wax is made by melting and stirring together one ounce of Venice turpentine, four ounces rosin, and six ounces gum shellac. A beautiful red color may be given by adding one quarter of an oz. or less of vermillion.

THE "WESTERN FEVER"—MOVING.

"I wish I had never left Georgia."

DEAR EDITORS:—I took the "Western Fever" twenty-eight years ago, and took it as naturally as I ever did the "chills," and not without some little exposure, I suppose. Yet, I got through it; and though I often thought, I admit, "I wish I had never left Georgia," yet I "never told it" —I had too much pride to admit it. Yet, dear friend, though we poor mortals oft times have our clouds, we have our sunshines. Are there not even now many who regret leaving their "fader land," the "dear auld country," "my bonny hame," even in the "granite State," or the land of onions, and where nutmegs are said to be grown out of the tree, or pumpkin seed from the sycamore—yet, is this worth thinking about. The question is, have not the great mass benefitted themselves and their children? I had troubles, some little richness, hard fare and bad water. Had I remained where the wind was eternally moaning through the pine leaves, I may not have had some of the discomforts, but I never could have hoped for my present comforts. I know in the West, hundreds, it may be thousands, who have moved from the North, the East, the South, and from Georgia, too, who would not now exchange the glorious West for their old homes, with a large "boot." The time was when I had to send over 20 miles to a Postoffice, when the corn had to go miles before it was made into meal, and when, supperless, I had to go to bed, or eat boiled or parched corn. This, many of us had to pass through; not so now. We now have our comforts—floors carpeted, in lieu of puncheon floors; plastered and papered walls in lieu of logs, and cracks large enough to patch a wild cat through; we have our silver forks and manegany in lieu of fingers and a puncheon stuck in a crack, for a table. I have had a wagon out of work, going to town, now I can go by railroad, do my trading and sleep at home on a hair mattrass. I had, 25 years, ago, 2 pieces of split wood, with four holes bored in, and 4 legs put in each—carpenters call them trussels—upon which oak boards or puncheons were laid and my travelling mattrass. I thereon, upon which I slept most sweetly, and when it snowed had to cover "head and ears." Now I sleep, not half so sweetly either, on a Rosewood French bedstead, worth \$200.

So you see, a little, yes, a very little stint—hard fare—puts us of the Great West in the way of doing better. I came here a poor man 23 years old, with a wife and one child. Come from a town, too, my wife educated in one of the best schools in the South, it was hard on her, she was raised so delicately, too, but her father and mother were working folks when she was born; her mother Mary played as well on the spinning wheel as my Mary did on the piano; but she, as lovely a girl as ever left "Georgia," took to the drudgery of plantation life, while she attended to our little cooking and washing, I attended to the "more weighty matters" of the field; I came here with gloves, silk stockings and ruffle shirts, and did not mind half so much my blistered hands, as I did the sweet smile she gave me when she put on the pine table, that cost \$1 50, what she had cooked. Oh, I thought that she thought, "had I married John ——— I would not have come to this." But it is all over now. Her daughter Mary is as comfortably fixed as my Mary is, and much better than the 1st Mary—my Mary's mother was. Thus, my friend, we are not to look at the present. Where there is industry, energy, economy, a will-to-do, and a determination never to flinch, the West is the country. We want more others here. We want boys and girls to meet any crisis, and their parents must have the game to

make the right young ones. Never mourn for western emigrants, the few who deserve it, would fail at home.

Yours, &c.,

LIII,

December, 1858.

IN-AND-IN BREEDING.

EDITORS SOUTHERN CULTIVATOR—I am gratified to see you have the nerve to print the article on page 363 of the *Cultivator* for 1858, in spite of the known opposition of the whole mass of planters, and stock raisers generally throughout the entire South. I say the whole, because I only hear one sentiment—opposition. I know friends, of more mind than I dare lay claim to, who would breed an animal to one known to be inferior, rather than to the best if a near of kin. Whilst I object not to your Legislature, wisely prohibiting inter-marriage with cousins in-and-in breeding in the human family—yet I would not have such a law, or such a pedigree as to stock. Could man have the permission from our Master to make selections as to mind and body in the human family I do not doubt, but what mind, *might not be* and the body (*certainly*) improved, but as the law and the gospel forbid, we would not discuss that.

In the article on pages 363 and 364, we have testimony from the practice of the Earl of Leicester, in the Bakewell sheep, in that of the Brothers Colling, in the lordly Durham, and we can adduce the Bekrshire, the Essex, the Suffolk hogs, pass on to the race horse and show the best stock have often a double or treble dip from one source.

To Robert Bakewell—known as Lord Durham or the Earl of Leicester—is due much of correct principle in breeding. He was never known to have used any cross in his famous Bakewell sheep, and the fact that when he first rented out his rams he only received 16 shillings, say \$4 per year, yet he soon farmed out a number at 25 guineas, or \$125 per year.

The Collings beginning in the same way, improving Durham cattle—beginning from 1 cow, I think, in 30 years sold 47 head; 12 under 1 year old, at \$35,000. Count, the choice bull, commanded 1000 guineas.

Who would breed a No. 1 Suffolk sow, to a land pike, rather than to her brother or sire? If such there be, then he deserves not so fine a hog. Who would breed a No. 1 Patton stock Devon cow to a piney-woods Carolina bull, in preference to a No. 1 bull—her full brother? If such there be, a law should be passed to appoint him a guardian. I have known flock of sheep without any cross for 25 years, and they were not worth over \$1 to \$1 50 each, but the sheep were never worth more, and never any selection; a ram was turned out, as many do a bull or a boar, the first or the last or just as the person thought at the time, and, no doubt, forgotten at times to leave one. No doubt but what the most worthless stock can be improved by feed and selecting breeders; but would it pay? is the question.

I have only desired to allude to this so that your readers will not pass that article by without a thought. Many notions exist as to Agricultural and Stock breeding matters which would soon fall below the investigating mind, and it is only necessary to get the attention of mind to the matter. The great prejudice to in-and-in breeding would vanish before investigation.

Yours, with best wishes,

M. W. PHILIPS.

Edwards, Miss., Dec., 1858.

 A French writer says that "to dream gloriously," you must act gloriously while you are awake; and to bring angels down to converse with you in your sleep, you must labor in the cause of virtue during the day.

FAT CATTLE, &c., IN NEW YORK.

The N. Y. Times, of December 16, says:

The annual exhibition of fat cattle and other stock was opened yesterday at Tattersalls, corner of Sixth avenue and Thirty-ninth street. The collection was not very large, but in other respects compares very favorably with previous shows. There are 35 hogs there, whose average gross weight is 430 pounds each, brought in by James A. Hamilton, of Livingston county, New York—they were sold to D. C. Gale, of Newburg, at \$7 per 100 pounds. Wm. E. Holmes shows a fat wether, weighing 321 pounds, of Leicester (Eng.) breed. A pair of three-year old fat cattle, weighing 4,550 pounds each, is on exhibition by Robert D. Cornell, who raised them from calves on his own farm, Clinton, Dutchess county, New York. They exhibited also most perfect training of yoke cattle, the keeper making them lie down, get up, and perform any desired evolution. The speculators said it was a great pity to spoil such excellent farm servants by converting them into roasting pieces for Christmas. There was, also, a lot of 16 Herefordshire grade cattle, shown by James Van Alstyne, of Ghent, Columbia county, New York, averaging 1,821 each. They were bought from George Clark, of Otsego county. The great ox of the exhibition, however, is the "Livingston Chief," half Durham, half native, from Livingston county, N. Y., exhibited by James A. Hamilton. He weighs 2,731 pounds, and was sold to Mr. Simon, of Brooklyn. A fine full-blooded Durham sow, valued at \$140, several native fat cattle, a goat, and a fair collection of poultry exhibited by Wm. Simpson, Jr., of West Farms, completed the assortment.

WHEAT IN TENNESSEE.—Although the past season in Tennessee was unfavorable to wheat, yet the crop of the State was large. At the State Fair, the premium for the best ten acres was awarded to Dr. W. H. Drane, of Montgomery county, the average being about thirty-five bushels per acre. As a matter of general interest, we publish below the mode of cultivation furnished by Dr. Drane, and the surveyor's certificate:—*Nashville Union*.

REPORT ON WHEAT CULTURE.

To the Honorable, the "State Agricultural Bureau":

I beg to submit a survey of ten acres of wheat, with the statement of S. G. Barbee and W. P. Barbee, who had the control and superintendence of the threshing, cleansing and washing of the yield of the said ten acres, the same being thirty-four bushels and fifty-four pounds per acre.

The above was part of a field of forty acres, cultivated in tobacco the last season, and was seeded to wheat, commencing about the 8th of October. The tobacco stubble was turned under with a large plow, the surface smoothed with a heavy brush dragged crosswise, and the wheat drill began its work, two bushels of seed per acre. The prospect was all that could be desired for a large yield during the winter and early spring—but a late frost, with frequent heavy rains and storms, while in bloom, and during the forming of the berry, did much to diminish the product.

The wheat was cast down so much that it was necessary to reap it in only one direction, (opposite the storm) and then it was found impossible to make clean harvest work—all of which is most respectfully submitted.

W. H. DRANE.

LTHE orange crop of Louisiana this season is very large, and the crop is selling from plantations at from six to eight dollars per thousand. Last year, a planter below the city was offered for \$1,500 a small tract of land adjoining his, and which was planted with orange trees of full growth. He refused, and this season the owner of the tract in question sold his crop for \$3,000.

PLEASANT HOMES.

THE homes of America will not become what they should be, until a true idea of life shall become more widely implanted. The worship of the dollar does more to degrade American homes than anything, than all things else. The chief end of life is to gather gold, and that gold is counted lost which hangs a picture upon the wall, which purchases flowers for the yard, which buys a toy or a book for the eager hand of childhood. Is this the whole of human life? Then it is a mean, meager, and most undesirable thing. A child will go forth from a stall, glad to find free air and wilder pasture. The influence of such a home upon him in after life will be just none at all, or nothing good. Thousands are rushing from homes like these every year. They crowd into cities. They crowd into villages. They swarm into places where life is clothed with a higher significance; and the old shell of home is deserted by every bird as soon as it can fly. Ancestral homesteads and patrimonial acres have no sacredness; and when the father and mother die, the stranger's money and the stranger's presence obliterate associations that should be among the most sacred of all things.

I would have you build up for yourselves and for your children, a home that will never be lightly parted with—a home which will be to all whose lives have been associated with it, the most interesting and precious spot on earth. I would have that home the abode of dignity, propriety, beauty grace, love genial fellowship, and happy associations. Out from such a home I would have good influences flow into neighborhoods. In such a home I would see ambition taking root, and receiving all generous culture. And then I would see you, young husband and wife, happy. Do not deprive yourselves of such influences as will come through an institution like this. No money can pay you for such deprivation. No circumstances but those of utter poverty can justify you in destroying these influences to your children.

TIMOTHY TITCOMBE.

RACERS VS. TROTTERS.

AMONG beasts, there is no greater aristocrat than the race-horse; he is no producer, he lives on the fat of the land; on the labor of others. The winds of heaven are not allowed to visit him too roughly, and he is unquestionably lord over all the brute creation. I am a great admirer of the horse for his beauty, his excellence, his usefulness, his sportiveness—nay I would say give me the

"Horse, which, in frantic fit,
Throws the foam from curb and bit."

but yet I do not desire the race horse, and why? He is not suited for work, his belly is too small, his legs are too long, and he is rather deficient in size. He is not suited to the saddle. I have seen but very few good saddle horses that were genuine race-horses. Their stride is generally too long in the gallop, and, as a general thing, but few of them pace. For light draught and harness, perhaps they are better adapted; and yet they are inferior in my estimation, to the Northern trotter. For more than thirty years, I have ridden or driven horses daily, and very few men have owned more horses or driven more miles. Now, whilst I admit that good horses may occasionally be found of various forms, yet I have uniformly found the following to be the best characteristics of a good horse. His muscles should be well developed on the thigh; the breast prominent; the shoulders deep and thrown well back; the abdomen round and large; the legs clean, bones flat and large. A horse with small bones is very liable to spavin, splint and wind galls. His rump should be round, and the juncture between the hinder extremities and the body should be neither too close nor too open. The rump should be a little drooped,

that is, a little higher before than behind. There are some excellent horses rather low before; they are frequently strong and suited to draft, but not travellers. A full mane and tail indicate a strong constitution. A good horse will stand well; if he be unexceptionable, he will stand on all four feet, if allowed to remain sometime alone, without resting either. If he be a good mover, he will carry one foot immediately after another. Such a horse is apt to be a good traveller; if he be not over fast, he will endure a long time. Some horses, with a powerful effort, throw their feet far beyond their bodies. Such horses may be fast, but are apt to tire. Give me the horse that keeps his feet well under him, shakes his body but little, holds his head up, and raises his feet sufficiently high not to stumble.

Now, I have not so frequently found the characteristics of a good horse to exist in the race-horse as in the Northern trotter, and instead of believing that our horses are improved by raising from race-horses, I think our horses would be better for the plow, for the gear and the saddle, by raising from horses of shorter legs, larger bodies, and more compact in form than the race stock. The latter is better adapted to the turf, but not so well adapted to ordinary purposes. We need a horse of power, of endurance, of good performance, and not a horse remarkable only for his swiftness. Many horses are active, sportive and easily kept, and yet unmixed with the race-horse. I have seen some very superior and excellent Canadians. The Morgan horse and Northern trotters are worthy of all praise. Some of the most inferior geldings I have ever owned were said to be of the race stock. Their fine and glossy hair, long legs, lank and gaunt abdomen, seem to indicate their descent from a race of "illustrious ancestors." These views, I know, are in opposition to the current opinion of the day, but facts are stubborn realities that cannot be easily controverted; and my opinion is based upon my own observation and experience—an experience based upon daily use for more than thirty years. And when I desire to purchase a horse, to recommend him as of the race stock is rather an objection to me. I am fully satisfied that the race stock has been a source of injury to the horses of Virginia, for such horses as we need for work, for the saddle or for harness. Some people read and take it for granted; others weigh and consider. Some adopt opinions that their fathers entertained; others think for themselves and form opinions accordingly.

A PHYSICIAN,

[in Southern Planter.]

BRITTLE HOOFs.

VERY many horses, which are confined much in the stable, are troubled with brittle hoofs. The crust of the hoof seems unable to withstand the least blow without breaking, and in some cases it is almost impossible to keep on a shoe: the driving of the nails often splitting open the hoof.

This complaint is entirely the result of improper treatment, and is unknown to the horse in the wild state. It is owing mainly to too close confinement upon a hard, dry, floor, want of sufficient exercise, and high feed. In a state of nature, the hoofs of the horse are often wet, and absorb a great deal of moisture from contact with the damp earth. This absorption of moisture, as was wisely ordained, is indispensably necessary to the healthy development of the hoof, and it cannot be long kept dry without injury.

Want of exercise and high feeding are also injurious to the feet, as well as to the general health. Exercise is necessary to promote a vigorous circulation in the limbs and feet, and the want of it predisposes the animal to all kinds of diseases of these important organs. High feeding combined with want of exercise is often the cause of

many diseases, the tendency being to promote congestion and inflammatory action. Many valuable horses are fondered in this way, while the owner never for a moment mistrusts the real difficulty.

If your horse's hoofs are inclined to be hard and brittle, put him at once upon a floor of loose earth, and see that it be kept constantly damp, but not wet. His stall should be six or eight feet wide, so that he can move about a little. If the soil is very loose, a pail of water sprinkled on the floor after the bedding has been removed every morning, will be sufficient. If possible, it is better to turn him into a damp pasture, after taking off his shoes.

If the hoofs are so brittle that the nails split them in driving, you will do well to attend personally to the shoeing. The nails should be as small as possible, and the shoe light. When the shoe is fitted, have the smith mark the places for the nails, and then bore with a small gimblet about one-third of the distance through, there will then be no difficulty in driving the nails without breaking the hoof. If you are obliged to use your horse upon a dry road, you will find it of great service to pack the feet with tow, and pour a little water on them two or three times during the day. Some recommend oiling the hoofs, and this may be of service when properly performed, but it requires much judgment to do it at the proper time. If the foot is moist, oiling tends to prevent the escape of the moisture—but if the foot is dry, the effect of the oiling will be to make it worse, by preventing the natural absorption of moisture.

If you observe carefully these simple directions, you will not often have any difficulty with brittle feet.

There is, however, one important exception to the course of treatment recommended above, and that is, in cases where the hoofs are not only brittle, but are thin or flat. It is very difficult to do anything with such feet, and if your horse is in other respects very valuable, you had better consult a veterinary surgeon.

C.,

[in *Vermont Stock Journal*.]

FAMILY PEACE.

1. Remember that our will is likely to be crossed every day, so prepare for it.
2. Every body in the house has an evil nature as well as ourselves, and, therefore, we are not to expect too much.
3. To learn the different temper of each individual.
4. To look upon each member of the family as one for whom Christ died.
5. When any good happens to any one to rejoice at it.
6. When inclined to give an angry answer, to lift up the heart in prayer.
7. If from sickness, pain or infirmity, we feel irritable, to keep a very strict watch over ourselves.
8. To observe when others are so suffering, and drop a word of kindness and sympathy suited to them.
9. To wait for little opportunities of pleasing, and to put little annoyances out of the way.
10. To take a cheerful view of everything—of the weather, and encourage hope.
11. To speak kindly to the servants, to praise them for little things when you can.
12. In all little pleasures that may occur to put self last.
13. To try for "the soft answer which turneth away wrath."
14. When we have been pained by an unkind word or deed, to ask ourselves, "Have I not often done the same and been forgiven?"
15. In conversation not to exalt ourselves, but to bring others forward.
16. To be very gentle with the young ones, and treat them with respect.
17. Never to judge one another, but to attribute a good motive when you can.

COMPOSTS.

COMPOSTS of various kinds have already been recommended and described; but a few words more:

Let nothing that is capable, when decomposed, of furnishing nutriment to your growing crops be permitted to go to waste about your premises. A compost heap should be at hand to receive all decomposed refuse. The best basis for this heap is well dried swamp muck; but where this is not readily obtained, procure rich turf scraping from the roadside, leaves and surface soil from the wood lands and the sides of fences, straw chips, corncobs, weeds, &c., aiding the decay of the coarser materials by the addition of urine or the lime and salt mixture mentioned in a previous section. Let this be composted with any animal matter found about the premises, or in the vicinity; the carcasses of all dead animals, large or small, offal of every kind, woolen rags, bones, old boots, shoes, and waste leather of every description, the droppings of the hen-roost, soap-suds, salt, brine, all drainings from the sink-spout, slops from the chambers, and cleanings from the privy—let all go to the compost heap. And whatever will not decay there, with sufficient rapidity, without assistance, aid its decay by the addition of such substances as will facilitate the object. Bones, leather, etc., may be softened so as to pulverize readily, by being packed in ashes and kept moist a few months; and if the whole be sufficiently covered with muck during the process, there will be no loss of any element; or they may be packed in an old cask in a strong solution of potash, or may be prepared with sulphuric acid in the most scientific manner, and when thus prepared in either of these ways, will add greatly to the value of the compost heap. And if it is not strong enough, add wood ashes to any extent, from 1 to 10 or 12 bushels per cord.

When thus prepared, our compost heap should be carefully worked over, thoroughly mixing all the different ingredients. It may, then, be applied to the soil in the same manner with that from the barn cellar, or in any other way desirable.—*The Farm.*

INDIAN MEAL AND CORN BREAD.

It is said that many more people would eat corn bread if they knew how to cook it. An "experienced housekeeper" has furnished us with some good recipes, which we command to inexperienced housekeepers. A bushel of corn contains more nutriment than a bushel of wheat. The latter is not generally considered fit to eat unless ground very fine and bolted. It is a mistake, however. Indian corn treated in the same way is never spoiled. It never should be ground fine. Let that be remembered. Fine meal may be eaten when 'fresh ground, but it will not keep sweet. The broken oil globules become rancid and bitter.

Corn cakes, made of meal and water, with a little salt, mixed into a stiff dough, very thoroughly, and baked on a board before a hot fire, or in a hot oven, or in little cakes on a griddle, till entirely done, are very sweet, wholesome bread.

Corn and wheat bread is wholesome and nutritious, and easily made—if you know how. Stir two teacupsful of white meal in a pint of hot water for each loaf; free it from lumps, and let it stand twenty-four hours. Boil two or three potatoes, peel and slice, and mash in a pint of water, which thicken with flour till it is stiff batter, and then add half a teacupful of baker's yeast. You will use about one-third as much meal, scalded as above, as you do of flour; knead the meal and yeast, and sponge, and add a little salt with the flour altogether, and mould in pans to rise moderately, and then bake, at first in a hot oven. This bread will be moist, and more nutritious and more healthy than if it were all flour.

Buckwheat cakes are improved by adding corn meal, prepared in the same way, in about the same proportion as for bread. A little wheat flour may be added to advantage. Don't let your batter over-rise and sour, and never use salerætus if it does.

Corn meal pudding may be made of yellow meal, stirred into scalded skimmed milk, till as thick as gruel, and when cool, add ginger' cianamon, nutmeg, salt and sweetening to suit the taste, and a little fine-cut suet, and some raisins, or, dried peaches, or a fine-cut apple. It should bake an hour or more according to size. You who do not believe anything made of corn meal can be good, will please try this recipe for a pudding.—*Philadelphia Post.*

A TENDER LAY.

Be gentle to the new laid eggs,
For eggs are brittle things;
They cannot fly until they're hatched,
And have a pair of wings;
If once you break the tender shell,
The wrong you can't redress;
The "yolk and white" will all run out,
And make a dreadful "mess."

'Tis but a little while at best,
That hens have power to lay—
To-morrow eggs may addled be,
That were quite fresh to-day.
Oh! let the touch be very light
That takes them from the keg;
There is no hand whose cunning skill
Can mend a broken egg!

Ay—touch it with a tender touch,
For till the egg is *biled*,
Who knows but that unwittingly,
It may be smashed and *spiled*.
The summer breeze that 'ginst it blows
Ought to be stilled and hushed:
For eggs like youthful purity,
Are "orful when they're squashed."

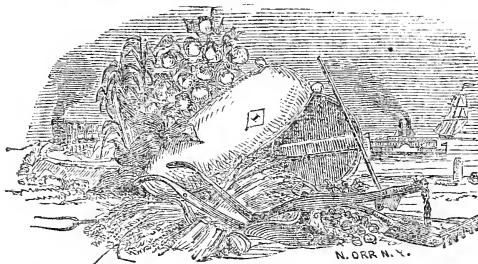
CHARCOAL FOR HOGS AND OTHER ANIMALS.

One of the most simple and excellent medicines for any derangement of the stomach of human beings, is finely pulverized, fresh burnt charcoal. For this purpose it should be closely corked up in a bottle as soon as it has been burnt and ground; a teaspoonful taken in a wine glass of water once a day will frequently be found beneficial and worth more than all the quack nostrums with which the country is flooded.

But our object was to speak of the value of charcoal to domestic animals, particularly to fattening hogs. A half pint of it finely pulverized and mixed with corn meal and water to each animal once or twice a week, will be found extremely beneficial in aiding digestion and preventing any derangement of the stomach, arising from over-feeding, as is liable to be the case with that hogfish animal. Besides serving as a medicine, it is also extremely fattening, either in itself or rendering the food eaten more available by correcting and stimulating the digestive powers.

Charcoal has also been known to work wonders in fattening poultry, geese, ducks, &c. It may be given in the same way as recommended for swine. Fowls that have accidentally been confined for a long time where they had access to no food, except charcoal, when discovered, were found not only to have sustained themselves but to have actually fattened.—*Valley Farmer.*

APPLES IMPORTED BY ENGLAND.—In 1856, the importation of apples into England is stated at 538,000 bushels—50,000 bushels of them from the United States.



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., NO. 1:::::::JANUARY, 1859.

NEW YEAR AND NEW VOLUME!

WITH the opening of the year 1859, we tender to all our friends and subscribers the compliments and good wishes of the season, and trust that all who have accompanied us thus far will embark with us anew, and find our *Seventeenth Volume* more instructive and useful than any which have preceded it.

ANSWERS TO CORRESPONDENTS.

PLANTING GRAPE CUTTINGS.—L. W. K.—Prepare your ground in accordance with the directions given on page 373, December number, or send for the pamphlet of Mr. de CARADEUC and adopt the plan therein recommended—see, also, the works of Buchanan, Allen, Spooner, Chorlton, Reemelin, Hoare, Phelps, Persoz, Rafinesque, &c., and be sure to plant an acre or two on the best manner you can, so that in three years you will have plenty of Grapes and Wine.

SHOEING OXEN.—L. S. G.—We have often seen it done, but cannot describe it so that your smith could understand it. The animal must be put into a strong frame made for the purpose, and the shoes are put on in halves, to fit the cloven part of the hoof, and that is about all the light that we can throw upon the subject.

PLUM AND HAW STOCKS.—P. G.—Yes—the plum and Peach will both “take” in the roots of wild plum; but these roots are objectionable, on account of the quantity of suckers they afterwards throw up. The Pear, we believe, succeeds very well when grafted on the common Red Haw.

TAN BARK AND LEATHER SCRAPS.—J. G. R.—We do not consider the spent Tan of much service, but the leather scraps may be profitably used in your compost heaps, and should be saved.

HORSE POWER.—Dr. J. D. A.—We were much pleased with the Yazoo Horse Power (FULTZ’s patent) which was in operation here not long since. We think it can be furnished by a company here, at a reasonable price; but have seen no public advertisement of it yet.

EARLY HARVEST APPLE GRAFTS.—L. G.—Send postage stamps to D. PONCE, Esq., Mount Zion, Ga., about the latter part of February.

COMMUNICATIONS from “Windsor,” “F. O. T.,” “J. T. G.,” Henry J. Smith, John Evans, &c., &c., are unavoidably deferred until our next.

ACKNOWLEDGMENTS.

WE are under obligations to Mr. CHARLES AXT, of Crawfordville, Ga., for a generous supply of his “Still Catawba”—vintage of 1857—a very pure and superior native Wine, which we commend to the attention of all who desire a good article.

To Dr. J. C. W. McDONNALD, of Woodward, S. C., for samples of five varieties of his native Wines, viz—*Pau-line, Warren, Port, Isabella* and *Scuppernong*. We gave a slight sketch of the qualities of these Wines in our December number, page 374, and can only say that it is a peculiar gratification to us to know that our light soils and generous climate can produce such pure, wholesome and delicate Wines as these. Dr. McDONNALD is entitled to much credit as one of the pioneer Vine growers of this section; and he evinces his faith in the enterprise by adding largely to his Vineyard every year. He has now about 80 acres in cultivation.

To R. PETERS, Esq., of Atlanta, Ga., for a bushel of fine *Mangum* Apples. The Mangum is a well known Southern seedling, ripening in October and November, and, to our taste, far superior to any Apple of the North, of any season. Every person possessing a rod of ground should plant a Mangum apple tree. Mr. PETERS also favored us with some fine *Shockley* Apples, which, if properly kept, are in eating from January until May. Mr. P. informs us that, after the fairest possible comparison, the present season, he is forced to yield the palm of superiority to the seedling Apples of Georgia and South Carolina, over those of all States farther North; and our own experience fully agrees with his.

To PETERS, HARDEN & Co., of Downing Hill Nursery, Atlanta, Ga., for a very choice selection of Native and Foreign Grape Vines, cuttings, Olive trees, &c., &c.

To P. J. BERCKMANS & Co., of “Fruitland Nursery,” Augusta, Ga., for a package of beautiful ornamental shrubbery, evergreens, &c., &c.

To Dr. JAMES CAMAK, of Athens, Ga., for a valuable collection of grape cuttings, grafts, &c., &c.

Also to other friends for various favors, which, though not specially mentioned, are kindly and gratefully remembered.

ENLARGEMENT---ADVERTISEMENTS, &c.

THE enlargement of our paper gives us almost unlimited space for advertisements, and we will be happy to insert all that may be sent us at the usual rates—which see. Our large circulation among the Farmers, Planters, Fruit Growers, Stock Raisers, Merchants, Mechanics and Professional men of the entire South and South West, renders the *Cultivator* one of the very best advertising mediums for those who desire to buy or sell, or in other ways to make their wants known.

AGRICULTURAL Books—NEW FIRM.—Our friend, A. O. MOORE, has recently formed a copartnership with JOSEPH HOWARD, and the new firm will continue the publication and sale of standard Agricultural Books, at the old stand, 140 Fulton street, New York city, under the style of A. O. MOORE & Co.

SUPER-PHOSPHATE OF LIME.—The attention of Planters and others, who wish to purchase fertilizers, is directed to the letter of Dr. PIGGOT, of Baltimore, (in our advertising columns,) in reference to the Super-Phosphate of Lime, prepared by L. S. HOYT, of New York.

AGRICULTURAL STATESMANSHIP.

THE time is not remote when the study of agricultural statesmanship will form a prominent feature in the education of young men who shall aspire to the honor of representing at all times, and in all places, the great farming interests of the country, in a way that shall be creditable to themselves and beneficial to the public. From a defective education, few things are more selfish and narrow-minded than the political demagogueism which now passes by the name of statesmanship; and every sagacious man of forty must see that the evil, instead of decreasing with the increase of population, is growing rapidly as Congress and State governments acquire additional means and facilities for making the public service a mercenary trade, to be carried on by the few at the expense of the many. Sooner or later a remedy for this undesirable condition of things must be found, or the aggregate of selfishness and corruption will plunge the people of the United States into anarchy and civil war. The confederacy is drifting in that direction from the want of true statesmanship in our rulers, and the excessive fondness of electors of the flatteries which first deceive, and then mislead them. Flattery has seduced many a strong man to his ruin besides SAMSON; and a nation is nothing more than the aggregate strength and dullness of many Sampsons easily put to sleep by the dulcet notes of political Delilahs. If any thing can stay the swelling tide of shameless prostitution, it is the uncontaminated virtue of American farmers and planters. But to act wisely for the salvation of republican institutions, they must carefully investigate the elementary principles of their system of self-government. They must learn to discriminate between the taking fallacies of the mere demagogue, and the weighty truths of the patriotic statesman. Such a discrimination cannot be made unless to the study of agriculture they add the study of politics as a science. In more ways than one every voter is a sovereign. Who then will say that this governing intellect of the farmer may not be cultivated and properly developed with reference to its duties to the State, as well as its duties to the Soil? The material interests of agriculture are largely affected by both State and Congressional legislation. At the recent Fair of the United States Agricultural Society, held at Richmond, Gen. CUSHING, in his address before the Society, urged the annexation of all Mexico to the United States, that there shall be no foreign territory between Texas and the Pacific. How will this project affect the interests of the South? Is it possible to plant slavery in a single new State there in spite of emigration thither, of Europeans, and set-anti-slavery tlers from the free States? Is our experience in California and Kanas worth nothing? Instead of grasping at vastly more land on this continent, does not wisdom demand that we seek first to improve the territory which we already possess? Why should a nation of agriculturists be in hot haste to raise and support a standing army to suppress anarchy, insurrection and Indian outrages in a republic, whose inhabitants have shown themselves to be incapable of self-government?

Not only does the proposed annexation of all Mexico call for the exercise of sound statesmanship, but there are other equally grave matters of public concernment, agitated by Senator SEWARD and others, which seem to require more than ordinary wisdom, forbearance and patriotism for their peaceful solution. Sophistry, passion and political ambition are working serious mischief. Seeing this, the writer has ventured a few words of caution to his readers, and of encouragement to such as may be willing to study agricultural statesmanship as a part of their mental culture.

NEW ADVERTISEMENTS.

SPECIAL attention is called to the following advertisements:

Sands' Agency for Farmers and Planters, Sam'l Sands. Agricultural Implements, John & Thos. A. Bones. Seeds at Wholesale, J. M. Thorburn & Co. Seeds of Evergreen Trees, &c., J. M. Thorburn & Co. Coria, Griffing, Brother & Co. Poudrette, Griffing, Brother & Co. Augusta Nursery, F. A. Mauge. Augusta Seed Store, J. H. Service. Grape Roots and Cuttings, Dr. J. C. W. McDonald. Grape Cuttings for Sale, Dr. H. H. Cook. Dried Blood and Wool Manure, Carmichael & Bean. Catawba Grape Cuttings, J. L. Wynn. Southern Seed Store, V. LaTaste. Spring Garden Seeds, J. M. Thorburn & Co. White Aylsbury Ducks, Thos. Daniel. Grape Culture, D. Redmond. Super-Phosphate of Lime, L. S. Hoyt. Boyd's Prolific Corn, John M. Turner. To Farmer, Planters, Millers, &c., Payne & Oleotts.

HINTS FOR THE MONTH.

PLANTATION.—Plow or "break up" land deep. Haul out manure. Ditch your gullied hill sides, horizontally. Repair old farm buildings and erect new ones. Examine and repair tools and implements. Repair your fences and hedges, and cut away all brush. Take particular care of all your live stock, especially working animals—shelter, in severe weather, and feed liberally. Sow Egyptian and other hardy winter Oats, and sow Rye for seed. Sow, also, a few rows of Wheat, to cut green in early summer.

GARDEN.—Sow early varieties of English Peas. Sow, also, on a warm exposure, Cabbage, Lettuce, Radish, Salsify, Spinage, Parsnip, Beet, Turnip, and other seeds. Onions (black seed) should, also, now be sown. Plant Irish Potatoes for early crops. Prepare hot beds the latter part of the month.

ORCHARD.—Plant, *at once*, all the finest varieties of Apples, Pears, Peaches, Plums, Apricots, Nectarines, Quinces, Pomegranates, Grapes, Figs, &c., &c., in all cases preferring Southern raised trees. Plant Hedges around your orchards and gardens. Set out Strawberry beds. Destroy the borer in peach trees by boiling water, &c., &c.

THE STUDY OF FARM ECONOMY.

THERE are many things in farm economy which receive far less attention than they deserve. Prominent among these is the art of keeping, in a sound condition, Irish and Sweet potatoes, when exposed to adverse and decomposing agencies. It is not pleasant to find a good crop of potatoes of whatever kind, rotting rapidly and prematurely without knowing how to arrest the evil; yet such will have been the experience of many a reader before this article meets his eye. The weather is so favorable to the early decay of the tubers named, that we feel safe in anticipating pretty severe losses, and justified in pointing out both the causes of the premature dissolution, and the appropriate remedies to be used as preventives hereafter.

The writer has been absent from home seven months,

and on his return finds his sweet potatoes dug and put into heaps, exposed to rain in the field, and quite rotten. Others who took better care of their crops have been equally unfortunate, because they did not understand the requirements of nature in preventing the early decomposition of this vegetable. *Heat and moisture* are the chemical agents which destroy the organized tissues of the tuber; and the farmer has only to prevent this excess of dampness and warmth to escape the loss indicated. Had the weather been dry and cold, it is more than probable that our potatoes would now be quite sound. The question to be solved is, how one can best keep recently dug potatoes from *heating and sweating*, the latter being the chemical effect of the first named chemical process. The additional warmth generated in a heap of potatoes being often less obvious than the moisture evolved, many overlook the internal heat which causes sweating, and do nothing to guard against it. The heat is produced precisely like that witnessed in bins of damp shelled corn, and in the sprouting of all seeds and buds. Vital air is absorbed from the atmosphere by the tubers, which, combining with carbon, produces carbonic acid, as is seen in beer tubs and in all fermentation; and at the same time vital air disengages heat that was before insensible or latent in the tubers, as in all other organized substances subject to decomposition. Simple fermentation, as in the ordinary sweating of a mass of potatoes, turnips or apples, does no essential harm only so far as it is the first stage of that putrefaction which is wholly destructive in its results. Long experience as well as science has induced us to avoid all fermentation, and consequently, all sweating and heating in heaps of tubers, roots, and other culinary vegetables and fruits, which we desire to keep for future use. This is done by never permitting two potatoes, beets, carrots, onions or apples to come in contact, having each surrounded by dry sand, loam, or some other fine and good absorbent. The process of banking the vegetables named is as follows: In an out building that has no floor the ground is generally dry, and if not it can be made so, and on this our potatoes are put up in heaps, being first assorted to get the large and small ones in separate places. A layer of potatoes is placed over dry earth so that no two touch each other; on these dry pulverized clay, or fine sand is spread to fill all the spaces between the tubers, and to cover them an inch in depth; and then another layer of potatoes is put on the former one, which is covered as before with fine sand or clay. In this way, any quantity of either Sweet or Irish potatoes may be stored up, as may also beets, turnips and apples, and kept from rotting all winter and until affected by the heat of spring or summer. According to our experiments, sweet potatoes require about 30 degrees more heat to germinate and grow than Irish potatoes; so one can keep sweet potatoes fit for table use in a cool place until Irish potatoes have been planted and grown to maturity for eating.

Whoever will try our suggestions in this important matter of domestic economy will find them worth the price of many volumes of the *Cultivator*. To some they will

appear to involve too much labor and trouble; but a common hand can put sand or dry loose earth over fifty bushels of vegetables in a day; the value and comfort of which, in a family, are hardly to be estimated in dollars and cents.

Potatoes may be banked in the field where they grow in the manner indicated, taking care to cover the heaps with boards or bark to keep them dry. A thick covering of straw or forest leaves will serve to exclude solar heat when in excess, and frost when the temperature of the air is too low. Prevent fermentation in vegetables, (their heating and sweating) and their decay is next to impossible.

Another practice in farm economy is just now engaging a share of our attention. It is the collection and spreading of manure, to be at once plowed in with such seeds as will grow in the winter and early spring months. It is not so easy as some may suppose to make clear and plain the science of producing good manure. The process is based on principles derived from geology, physiology, meteorology and chemistry, aided in a large degree by the teachings of experience in the art of husbandry. No husbandman has the power to create one atom of any fertilizing matter. He must work with the elements that God gives him. These elements are all within his reach in greater or less abundance. To the writer, they are most available in forest leaves, corn and cotton seed. When corn is worth \$2 50 a barrel, at what price can one produce fat hogs per 100 lbs. for their meat, and clear their manure as a profit?

Answer—at five dollars per 100 pounds. A man needs considerable confidence in his skill as a farmer to pay out money for grain where his expectations of profit are limited to the manure which the grain will furnish. This system of farm economy is practiced by millions in Europe; and it is not impracticable in the cotton growing States. Its elements, however, are too numerous for analysis at this time. We prefer to have forest leaves partly rotten before they are used as manure; nevertheless any leaves whether green or dry, plowed in, are better than no manure on poor land. Therefore we collect them, knowing that they will soon decay buried in tilled earth. All our recent as well as rotten dung is to be plowed in to nourish growing crops. We can produce a crop of winter rye or wheat for pasture, from the recent excrements of animals by the time the latter will decompose in stables or yards. In this way, much more manure may be had in six or twelve months than a less active system of manorial management will give to the husbandman. The business maxim that “a nimble sixpence is better than a slow shilling” applies to the use of capital in agriculture. Few men have studied the elements of fruitfulness and of fecundity as they deserve to be studied. Fruitfulness is a power and a theme every way worthy of our profoundest consideration. We wish our attainments were such as to do justice to the subject. On many a farm the want of fruitfulness is felt to be a serious misfortune. To prevent all surface washing, practice deeper plowing, produce renovating crops, keep more and better live stock, and

gather fertilizers from every available source; these are the means mainly resorted to by the writer for augmenting the fruitfulness of a badly worn, impoverished plantation. Without any special contrivance, or extraordinary husbandry, fertility will grow like a young peach orchard in a good soil, under a wise system of farm economy. When our calves, pigs, lambs and colts thrive and wax fat, our rejuvenated fields will share in the general change for the better. At the present writing, the best grass on the farm is the Bermuda; and we wish it covered every rood on the plantation. We would then purchase another one near by for the cultivation of winter grasses. Possibly the writer will be disappointed in the value of these at the South; if so, the experiment will, even in that case, be worth something to the public. A man should act according to his convictions of what is sound in principle as well in agriculture as in all other pursuits. Dr. TERRELL desired that the South should adopt an improving system of farm economy; and if the writer should fail to find out the best way to attain the object of his distinguished friend, it will be something to have sought it with all due diligence and earnestness. One may not command success, but he may govern himself as to deserve it.

As another item in farm economy, a few words may be said on the art of making *winter butter*. With a very commendable desire to produce a good article, that which has been made recently on the farm of the writer, contains about twenty-five per cent. of white cheese curd, and is without color or fragrance. If the weather was a little warmer, it would not keep a week without becoming rancid. The defects arise, first, from the feed of the cows; secondly, from the improper management of the milk and cream; and lastly, from not knowing how to separate all the buttermilk and sugar of milk so as to have the butter in a pure and beautiful condition. The fine golden color of May butter is hardly attainable in winter unless one has green rye or wheat fields for cows to graze on, or unless one cures green corn, millet, oats, or grass, at that period in the development of the plants when the soluble coloring matter is most abundant. Neither ripe corn blades, nor straw of any grain or hay, will impart a rich color to butter. But cut and cured at the right time, like the best green or black tea, both the aroma and color of herbage may be preserved in an available state for the production of delicious winter butter. It is desirable that every family know how to supply itself with sweet and long keeping butter at the least possible cost; and we shall discuss the subject at length in the present volume of this journal. It is certainly bad economy to be so dependent on the North for butter, cheese, hay, horses, farm implements, grass seeds, and a thousand other things that might be named. To teach the art of producing most of these things on a farm, we are more than half inclined to open an agricultural School. Such an institution ought to meet with encouragement, but whether it would or not is doubtful. One can best understand the principles of farm economy by seeing them illustrated in daily practice at the time when

they are studied as a profession. The human mind acquires its best knowledge by careful observation where all the aids and appliances for making progress favor the ends sought. To remove the defects so apparent in Southern economy, the friends of improvement have only to foster the efforts of those who seek to work out a general and permanent reform. L.

BOOKS, PAMPHLETS, &c, received at this Office, since our last issue:

CATALOGUE of the Agricultural Library in the Office of the Secretary of the Massachusetts Board of Agriculture.

ADDRESS delivered before the N. Y. State Agricultural Society, at Syracuse, Oct. 8, 1858, by JOSEPH P. WILLIAMS, President of the Michigan State Agricultural College.

CATALOGUE of Fruit and Ornamental Trees, Shrubbery, Vines, Roses, etc., cultivated and for sale at the Cherry Hill Nurseries, West Chester, Pa. HOOPES & BRO., Proprietors. 1859.

ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS, for 1859. Price, 25 cents. Address LUTHER TUCKER & SON, Albany, N. Y.

 The "VIRGINIA FARM JOURNAL" is the title of a very neat folio sheet published weekly at Richmond, Va. M. S. Crockett, Editor. Price, \$2 per annum.

COTTON SEED CLEANER.—Every improvement in the cotton culture, or manufacture (says an exchange paper) is of importance to this country. A citizen of Antwerp, in Holland, is said to have invented, and to be now operating there, a machine for cleansing cotton seed. From two to three tons of seed can be daily cleaned of its adhering cotton, by a machine of four-horse power, with the assistance of three persons. The cotton which envelopes the seed is taken clean off, and is readily purchased by the carpet manufacturers and paper makers. The oil is then pressed out by means of powerful machinery, and the cakes are then saleable at the same price as other oleaginous seeds. The invention might be imported with advantage to our American cotton fields, if native ingenuity has not already accomplished the various success reported of the Hollander.

THE WHEAT MIDGE.—Geo. S. Woodhull, of Fenton, Mich., asserts that the midge does not leave the wheat until it is threshed, and then it goes in the chaff and straw, and probably lies dormant till spring, when it hatches into a fly and deposits its eggs. He thinks this troublesome pest might be destroyed by burning straw and chaff of affected wheat for a few years.

SORGHO SYRUP KEEPS WELL.—Among the articles shown at a late Fair in Winnsboro, (S. C.) was a sample of Sorgho Syrup, of which the editor of the *Fairfield Herald* says:

"A bottle of Chinese Cane Syrup, prepared in 1857 by Hon. E. G. Palmer, was submitted to our taste. It is in fine keeping, pure, and of flavor richer than when new. So, Syrup will 'keep.' Note that."

 SHERIDAN said beautifully, "Woman govern us; let us render them perfect; the more they are enlightened, so much more shall we be. On the cultivation of their minds, depends the wisdom of men."

Horticultural Department.

THE PROSPECTS OF FRUIT CULTURE.

EDITORS SOUTHERN CULTIVATOR—At no time has the prospects to the fruit culturist at the South been so promising as at the present; not only has it been demonstrated that every variety can be cultivated with greater success, in regard to size, quality, quantity and durability of the trees, than at the North; but that they can, and are, as we asserted some 5 or 6 years since, finding a ready and profitable market in the Northern cities. Not only is the present market a profitable one, but will increase in profitability from year to year, from the fact that both the apple and peach trees there have become so enfeebled and diseased that a great number of hitherto cultivators are abandoning the business of cultivating fruit for market; not on account of low price, (for good fruit has never sold so high as it has the present season) but on account of the failure of the trees.

We saw a paragraph in the New York *Journal of Commerce*, stating that their market had, at no one time, been so well, cheaply and abundantly supplied, as when the supply came from the Southern States; and so it must henceforth continue, if those living along the lines of our Railroads leading to the cities of Charleston and Savannah will engage in its culture. It is now but some 6 to 8 years since our Southern friends began to pay attention to this department of husbandry, and with such facts and prospects before them, with such a revolution as has already taken place, all should be encouraged to go on and perfect it, until the mint of wealth the North has received from the South for the space of fifty years or more for fruit and trees, shall roll back with interest.

That they must and are annually becoming more and more dependent upon us for a supply, is being acknowledged by those residing there, who are capable of judging, and whose opinions are entitled to full confidence.

With the diminution of quantity raised in the North, together with the rapid increase of population, it is but reasonable to suppose the augmentation in prices from year to year; as it is, no business affords a fairer profit, and were we located along on the line of either of the aforesaid Railroads, our whole efforts would be to cultivate fruit for Northern markets.

Thus far we have viewed the subject in a pecuniary point; there is another, of superior attraction with us; which is an abundant supply for domestic use; no one article of diet is more conducive to health and pleasure than an abundance of good fruit; there is no substitute to be found for it, and as we become accustomed to the use of it *ad libitum*, then only can we realize and appreciate the loss when deprived of it.

As the planting of orchards is but a small item of expense or labor, many defer it from year to year. To such we would say, you are little aware of the comfort and pleasure you are depriving yourselves and families of, by procrastinating this small amount of labor and expense until, perhaps, the accidental enjoyment shall be thrust upon you by a visit to some friend who has had sufficient liberality and sagacity, to forestall you in the matter.

J. VAN BUREN.

Clarksville, Nov., 1858.

MICE EATING TREES.—A good protection may be had by using two pieces of two-inch tile. Placing them together so as to encircle the tree, an efficient safeguard is obtained. At the bottom they may be held together by a pyramid of earth, or fastened top and bottom with a small-sized annealed wire, as mice eat off an ordinary string. Tile of this size, or larger when the trees require it, are not very expensive, if preserved for future use.

HOW YOUNG HORTICULTURE CLEANED and Manured his Orchard, 20 Acres in 20 Minutes!

EDITORS SOUTHERN CULTIVATOR—A recent article from Mr. Hardin, of Atlanta, touching the value of Charcoal as an application to the roots of Fruit Trees, and particularly as an antidote to "Aphis," tempts me to expose a plan of culture of which the above is a fitting caption.

I believe you are aware that young H. started in (pomological) life with a determination to have the best orchard obtainable by love (of the subject) or money; that he therefore selected a nice plateau on a lofty ridge, still in its native oaks and hickories; that these were cut down, and cut up, and burned in the immense holes, which are a prominent feature in that young gentleman's operations. Here, then, was a fair start in the way of "ground work." The trees you know something about; but I will here introduce a hint for those who never heard the "echo story," viz: that of all men, the Nursery-man is the most responsive to liberal treatment!

Now for the 2/40 hort-cultivation above indicated. It was effected by harnessing the world's ancient (and future) enemy, Fire!

Remark the word, *harness*.

Then, no wheel, no hoof, *no crop* were allowed in that enclosure. It was sacred to Pomona, and I never heard that "Ceres" looked solemn or "Flora" pouted at their restriction to more suitable quarters.

Each tree was presented with a fee simple title to so much land as it could shadow over; with two feet additional diameter to allow for the spread of the outside grass roots. Within this circle, no sign of vegetation was allowed to show itself. *Outside*, the grass was encouraged to grow by an occasional setting down of the most obtrusive weeds.

As this grass was seeding, it was carelessly cut over, and carelessly raked, so as to leave a layer of litter over the ground. Quite a quantity of hay was thus housed, *vice "shucks,"* resigned.

Of course, the first shower brought on a new crop, feebler than the first, but sufficient for the fate that awaited it.

For, when the first light frost had slightly browned it, the torch of the incendiary was applied to the underlying dry grass of the previous cutting.

Then—fancy "4th of July" and "Christmas" come together! fancy "Civil War" among the Pigmies, and all Liliput in an uproar! fancy China exploding *seriatim*, the world's supply of "poppers," and you'll fancy the "feu de joie" which attended the inauguration of a new era.

Observe that the standing grass was too green to burn fiercely; it was merely levelled in "long swept waves" before the undergrass combustion, and was only in part consumed; though I fancy a variety of insects, eggs, chrysalids, mice, etc., did not get off in an under-done condition.

The appearance of the ground now is this: A fine layer of charcoal all over the surface, overlaid by a thin, brown mat of scorched grass; into which the golden roots of the Dukes and Beurres, Pearmins and Pippins, Crawfords and Columbias, are penetrating on all sides.

This "mat" is also to be held in reserve against the encroachment of Jack Frost in the spring; though no danger could result from an accidental conflagration at any time.

In conclusion, I hope that nobody will gather from the above that Young H. merely "lets the grass grow in his orchard and burns it over in the fall"—for he *doesn't do any such thing!*

And is, very respectfully yours,
Near Columbus, Christmas, 1858.

Y. H.

THE ANNA GRAPE.

THIS is a new variety, now first offered for sale by Dr. Grant, of Iona, of N. Y. It grew from seed in the garden of Mr. Eli Hasbrouck, of Newburg, and first fruited in 1851. Very fine specimens of the Anna Grape were exhibited by Dr. Grant at the last session of the American Pomological Society, in New York, and, though not quite mature, the variety appeared to be one of good promise. As it has only fruited at Iona, where Dr. Grant states it is as early as the Diana, nothing can be said of its ripening in other localities.

Dr. Grant describes it as follows:—The bunches are large and loose, or moderately compact, on young vines, but on those that are mature, compact, shouldered, and symmetrical. Berries large globular, translucent, and firmly adhering to the pedicels. The color varies from light amber in the sun to pearly white or green in the shade. The bloom is white and abundant, through which may be seen a few brown dots. It is surpassingly sweet, rich, vinous, and somewhat spicy in its flavor, and has a decided but fine and delightful aroma. It ripens quite as early as the Diana, and fully two weeks before the Catawba, hangs very late on the vines, and is not injured by severe freezing. For late keeping it is unequalled, and its raisins are not surpassed in quality by any foreign variety.

"In habit, it is much like the Catawba; very healthy and vigorous; leaves very fleshy and firm, remarkably exempt from disposition to mildew, and ripens its wood earlier and more perfectly than any variety, and does not lose its leaves until it has matured its fruit."

We tasted the specimens above alluded to, and, though not perfectly ripe, we do not hesitate to pronounce it a very fine grape. If it proves as early as the Diana, it will be a most valuable acquisition.—*Hovey's Magazine of Horticulture*.

[We also tested the "Anna," very fully, both at the Pomological meeting and at Iona Island, and our impressions of it were very favorable. We have procured several vines from Dr. GRANT, for trial here, and do not doubt that our genial climate will develop all its good qualities.—Eps.]

FRUIT AT THE NORTH---THE FAIRS, &c.

EDITORS SOUTHERN CULTIVATOR—I have delayed sending you my promised notes and remarks, till I had seen the last exhibition of this season in the Northern States.

Although the past summer and spring have proved most unfavorable for the setting and growth of the fruit, still there has been as fine a supply of Apples, Pears and Grapes in the different Fairs as I ever saw before. This fact proves once more that, if all corners, aspects, soils and latitudes were fairly tested, we should never be without fine fruit, and plenty of it. I once remarked that if, for instance, Georgia had only one good apple tree upon every two hundred acres of land, instead of paying for imported apples from the North, we could export our own Apples to the North.

The present season has afforded a remarkable confirmation of that truth; while in most of our gardens in the very best orchards fruit had partially or entirely failed, in other localities there was an abundant supply of all kinds of fruits. I never saw a finer collection of Apples (not by a few specimens, but by the bushel) than in Hartford, at the State Fair's exhibition. Connecticut has supplied the N. Y. market with a large quantity of the very finest Apples. Hubbardston, Winter Wine. Seek no further and other choicer varieties, besides a still larger quantity of the more common sorts.

And what shall I say about the Boston exhibition?

It far surpassed the fine collection of Pears and Apples in New York City (Mozart Hall and Crystal Palace). It seemed to me that the experienced fruit growers of Massachusetts had all reserved their efforts to make this exhibition in the Horticultural Rooms in Boston, one of the very finest of the North; chiefly in regard to Pears, unexcelled in size and beauty; Among the many competitors it was hard work to decide upon the best collection. As usual, the Hon. M. P. Wilder took the premium, although he never had so many and so close competitors. Many new and valuable varieties, from seed, are now making their way among the older varieties, and will soon compete with or supersede such varieties, which, although highly esteemed, are deficient in quality adapted to every soil and latitude, or prove to be shy bearers, or too much influenced by moist or dry seasons. As our fathers have done—admitting new fruit in the place of out-run varieties, no longer fit for cultivation—so we must do in the succession of ages. For, all our leading varieties were unknown in the beginning of this century, and some of the very best, such as Duchesse, Superfin, &c., are not over 40 years old.

To return to my first remark about adaptation of some soils, and some localities to the production of fruit. Is it not a remarkable fact, that while Grapes, Isabella and Catawba, have mostly failed in places where they used to be most luscious and certain, I found the very finest bunches of both varieties grown out doors around Syracuse? Not far from that city, in a peculiar locality, those two varieties, now so uncertain in New York and Pennsylvania, succeed most wonderfully. I saw there, also, some Hartford Prolific; but the season was too far advanced for this truly early grape, which I should class above the Isabella, were it not for its liability to drop, as our wild grapes. But I believe that early picking, without preventing the final ripening of the berry, would secure the crop.

In Syracuse, also, there was a fine display of Apples, Pears and Plums; but the first not by the bushel, as in Hartford—showing, evidently that this was the result of a more laborious and extensive collecting process. New York State has produced very little fruit during the past season, but as the growth of the fruit trees in general has been most remarkable, I believe that the orchards and gardens are ready for another and more successful campaign. Peaches, as far south as Delaware, have been a failure. Very few were on exhibition, and many of these were tasteless.

In Philadelphia there was but a scanty supply in the Pomological department; indeed, in Pennsylvania the fruit failure seemed to be more general and complete than in the other Northern States.

Brooklyn had a very fine exhibition of Fruit. No wonder! Long Island is the fatherland of some of our best Pears—the Lawrence, the Bergen, &c., &c.—and has, within its narrow limits, some of the finest gardens and graperies of America.

I have confined my remarks to the fruit department, and shall have nothing to say about the splendid Cattle, Horses, &c., in these different State Fairs; but I cannot leave unnoticed the different new contrivances in the Mechanical department. Self-opening Gates, New Fixtures for windows and blinds, Farm Implements, Stoves, Mills, Churns. All the most ingenious improvements, for which Yankee Land is so justly celebrated, were there in profusion, and some, I think, will soon be in general demand.

In the Agricultural department there was also some notable improvement. I remarked, and afterwards tested, the Prince Albert Potato, now pretty generally cultivated; a truly valuable variety.

But it would take more space than you could give to these notes, if I had to point out and name everything

which attracted my special attention. I will, at some future time, fall back upon my notes to illustrate certain facts and theories which have been the constant objects of my attention. My rambles over all these rich Fair Grounds have afforded me precious materials for comparison and study.

B.

PLUMS AND APPLES---REPLY TO 'WINDSOR.'

EDITORS SOUTHERN CULTIVATOR—The "*Howell's Early*" Plum is (as stated in the article in your last, signed "Windsor,") identical with our plum known under the name of "Sea," "Early Purple," "Mogul," &c. They have proved the same this year at Newburgh, on the grounds of Mr. Charles Downing, as well as at Mr. Peters', and other places South. Dr. C. W. Long, of this place, has a seedling variety identical, except the fruit is twice the size—flavor and time of ripening are the same.

"Yellow June" is a very fine Southern apple, but totally distinct from "Early Harvest." The latter is more oblate and early; it bears here fine crops of excellent fruit, and is the first really good early fruit that ripens.

Yours, &c., WM. N. WHITE.

Athens, Ga., Dec., 1858.

ENCOURAGE THE GRAPE CULTURE.

EDITORS SOUTHERN CULTIVATOR—Every planter should cultivate from one-fourth to one full acre of ground in grape vines, according to the force employed on the plantation, so as, by degrees, to bring some of the old worn out lands into use. If this is found profitable, the acre of ground may be extended to acres. The plowing and hoeing of the vines can be done in continuation, when the corn and cotton is cultivated, without much loss of time. It will require the personal attention of the proprietor to have the vines trimmed in the fall or winter, and to rub off all the useless sprouts and buds in spring and summer. In a little time, any intelligent servant, can be taught to do this. The result will be, an abundant supply of grapes for table use, and wine for medicinal and other purposes. The general use of wine in this country will have a tendency to discontinue the use of spirituous liquors, so demoralizing and ruinous to a large portion of our fellow beings.

D. P.

December, 1858.

MANURE FOR FRUIT TREES---WHERE TO Feed Fruit Trees.

BY WILLIAM BACON, RICHMOND, MASSACHUSETTS.

The great secret in cultivating all plants successfully, lies in furnishing them with food best adapted to their growth and healthfulness. Whenever a tree or plant is found naturally growing and attains a perfection of growth, there, we may suppose nature furnishes the necessary elements. A plant taken from such a locality and transplanted to another of similar character, we may suppose will succeed well, but if the soil is moister or drier or is composed of different elements, the character of the tree must become somewhat changed by these circumstances, its duration will, it is likely, be changed also, and very likely the quality of its fruit will be affected by like causes.

It is an object, then, for all cultivators, especially those of fruit trees, fully to understand the character of the soils in which they are most at home, and whatever artificial means are used to produce growth and fruitfulness, should tend to giving them a similar soil.

Our experience in this matter has been somewhat varied. We have tried well-rotted barnyard manure, placed in heaps around the tree in autumn, and forked it in, in April. This, as reason fully teaches, came near be-

ing a fatal experiment. The tree did not exhibit a single leaf until the July following, and then was saved only by careful treatment, heading in, washing the remaining parts with strong soap suds, and pouring the same material around the roots until the feverish heat produced by the decaying manure around them was subdued. In two weeks from the commencement of this treatment, we had our tree in healthful leaf, and had fully learned never again to apply heating manures to fruit trees. Old leaves, we have also tried, and find them valuable as mulching when that is necessary; but placed in the soil they are worthless, nay, dangerous, until pretty thoroughly decomposed.

The very best material we have tried, and we can bring proof of its goodness from the experience of others, is a compost of which swamp muck is the body or principal material. Its vegetable matter, in almost every stage of decomposition, its tendency when mixed with the soil to retain just enough and none too much moisture, to keep light and porous itself and keep the soil so, in which it is incorporated, adapt it not only to become an acceptable food for trees, but to keep the earth in a condition for the expansion of the roots. It may be successfully used alone after the exposure of a few months to the atmosphere, but is essentially improved by adding a couple of bushels of lime or a half dozen bushels of ashes to the cord, or by letting it lie where it will take the wash of the barnyard, or the soap suds from the house.

Here, then, we can do away the objections of those who claim they cannot afford to manure their fruit trees, from the supposition that by doing so they shall rob their other crops, and thereby have a few bushels less of corn or a few hundred less of hay. They need do no such thing as rob their yards or stables for the purpose. *Nature* has provided a better material for the object, one that is now throwing out nausea to engender disease, all over the land, but which kindly offers to kindle a new and deeper glow on the face of the apple, and expand the ruddy cheeks of the pear to more healthful dimensions. All she asks for it, is, to have it taken out of her way, for doing which, she promises to create a new supply in the same repository from the leaves that rush there to escape from the driving winds, and the loose material brought from the hills by the noisy rivulet that stops in the sluggish pool to rest awhile in its ocean course. What a beautiful combination! Atoms from crumbling rocks, soil from the woodlands and hillsides, and the cast off drapery of the forest so far decayed, that its identity is lost. Just the thing to make a new soil of an old one and cause earth to smile again at the beauty of her plants and trees, and glorious, health-giving fruits.

WHERE TO FEED FRUIT TREES.

The stones of the field and trees of the forest are teachers, and what is more beautiful, they teach the truth. We planted a white oak, some years, not in honor of any warrior or political race horse on the track for election, but to add one more variety to our pretty well duplicated grounds. After it had stood a year or two, we noticed in mid-summer a circle around it, some five feet from the trunk, and six inches wide, where the grass had died out. The next year this circle was removed from its outer rim, still further from the tree, and of an increased width, and so it has continued to travel for several years. The fact gave rise to many wonders as to the cause among observers, but the inference we drew from the fact was that the white oak was a great eater, that the mass of feeders lay under the circle where the grass was killed, and pushed away from the tree in proportion as the circle enlarged.

The native chestnut, planted out gave the same illustration. In this case of both trees, the inner circle became sodden with grass as new circles were forming beyond, and the increased width of circle from year to year showed us that the feeders were increasing to meet additional demands of the tree.

To us, it was a lesson without labor or cost. It taught us that the practice so universally adopted of manuring fruit trees for a little distance, just around the body of the tree, could never meet their demands for food. A few feeders may remain, to be sure, scattered along the roots which are yearly increasing in size, but the body of them are yearly pushing away in search of a greater amount of food. Fully to subserve the purpose then for which manure is applied to fruit trees, the mass of it must annually be placed further from the trunk of the tree for keeping up with the circle of feeders to gratify their demands.

The observation teaches another fact. A preparation of ground to receive a tree, for a few feet square does not fully answer their demands. It may do well to give them a start, but when they get to the end of this starting point, disease and dwarfishness will follow. The man who plants an orchard of any kind of fruit, must give all the soil an ample preparation, or his success cannot be complete.

The root is the most important part of a tree. If they can spread and extend themselves, the trunk and branches will follow, of course, and in due time the fruit will appear.

Again, the power of a tree to resist winds depends much upon the strength and circuit of its roots. If they are fine and far-spreading, but little danger will arise from stormy gales, I am often pleased to see the *Horticulturist* going to the root of the matter.—*Horticulturist*.

MISSISSIPPI WINES.

COL. J. J. WILLIAMS—*Dear Sir*:—I have just finished pressing my crop of Catawba Grapes, and have celled five hundred and fifty gallons strained must, of which I expect to make five hundred gallons of wine. Had I been able to save my whole crop, I would easily have made one thousand gallons wine, but unfortunately for me, my press gave way the first day I used it, and I could not obtain another for ten days, during which time it rained several days and destroyed half my crop. If I live another year, I will know how to prepare for saving a grape crop.

Mine was probably the largest crop ever raised on the same quantity of land, about three quarters of an acre, and I am satisfied that if I had been well prepared, and it had not rained, I would have made at the rate of twelve hundred and fifty gallons of strained must to the acre.

I have half an acre more of vines, which will yield half a crop next year if the season is favorable.

My barrels of fermenting must is in a cellar about 12 feet deep, and seems to be doing well. I shall rack it off when the weather gets cool.

Respectfully,
J. B. HANCOCK.
Marion, Miss., Aug., 1858.

THE HOO SUNG.

UNDER the above name I have cultivated, for some time, a plant, which I think worthy of being generally known. It is a native of China, and through the kindness of one of my friends (J. B. Garber, of Columbia, Pa.) I obtained the seed.

He represented it to me as an excellent substitutes for the asparagus, and I find it really worthy of all the praise bestowed upon it. It is a species of lettuce, and can be used as such when young. But its chief merit is in its being an admirable substitute for asparagus. When the plants are nearly ready to flower, the stalk is quite tender, and from a half to three-fourths of an inch in diameter, and, on strong soil, sometimes three feet high. It may be cut up and cooked in the same way as asparagus. The culture is the same in all respects as lettuce. Time of sowing, from the middle of April to the first of June. (In a Southern latitude, from February to May.) The

soil cannot be too strong—the richer the better. Sow quite thin, or the stalks will be small. It will yield ten times more on the same space of ground than asparagus, as it grows as well as if it was a native of the soil.

WILLIS DENNIS,
[In Northern Farmer.

Applebachville, Bucks Co., Pa.

EDITORS SOUTHERN CULTIVATOR—I have given the Hoo Sung a fair trial, and can say that it possesses all the qualities claimed for it—indeed, I will go a little further, and say, that to my taste it is superior to the asparagus. I have a small quantity of the seed on sale, at the Southern Seed Store. See advertisement. V. LATASTE.

VICTORIA REGIA---GIGANTIC LILY.

“A few days ago I went to see a remarkable plant in one of the private green houses in Philadelphia, and I must really give you description of it.

“It grows in water five feet deep, and at a temperature of 90°. Each leaf is nearly as large as a moderate sized dining-table, perfectly round, of a bright green color on top, while underneath is of a brilliant red. Unlike the generality of leaves, it has no veins, and is so smooth as to feel like satin. The bottom is divided into numerous little cells, nearly an inch in depth, these cells being always filled with air; it is impossible to press the leaf down, and the gardener said it was capable of bearing great weights. As an instance, he related an anecdote of a child who had been placed on one of these leaves to be saved from drowning, and had been carried in safety across the river. On hearing this wonderful story, a friend and I proposed to try the experiment, and to mount a leaf, too. This quite startled the gardener, who never having seen the attempt made, was afraid of our getting wet, but we would not be dissuaded. And, wonder of wonders, I found myself standing with nothing between the water and me but a leaf. I could scarce credit my own senses for a time, until, by placing more of my weight on one side than on the other, I had a sensible demonstration of my predicament by getting my feet wet.

Now, that it is all over, it seems more marvelous than ever. I have often read of such things in fairy legends, but the idea that it could be done by human beings never flashed across my brain. But I have been so minute in describing the leaf, that I had nearly forgotten the flower, which is about as large as a common sized basin; the outer petals are white; next comes a pale pink, which gradually deepens, until at the centre it is a deep rose color; and there the petals form a crown.

This singular plant is a native of Brazil, chiefly found in the river Amazon; and it was taken to England in the early part of the reign of Queen Victoria, thereby obtaining the name of Victoria Regia.—*Extract of a letter from Philadelphia.*

THE TOMATO—ITS PROPERTIES.—Dr. Bennett, a professor of some celebrity, considers it an invaluable article of diet, and ascribes to it very important medical properties:

1. That the tomato is one of the most powerful aperients of the *Materia Medica*, and that in all those affections of the liver and organs where calomel is indispensable, it is probably the most effective and least harmful remedial agent known to the profession.

2. That a chemical extract pill can be obtained from it which will altogether supersede the use of calomel in the cure of disease.

3. That he has successfully treated diarrhoea with this article alone.

4. That when used as an article of diet, it is almost a sovereign remedy for dyspepsia and indigestion.

5. That the citizens in ordinary should make use of it either raw, cooked, or in the form of a catsup, with their daily food, as it is a most healthy article.—*Repository.*

YOUNG HORTICULTURE.

MY DEAR CULTIVATOR!—If young Horticulture has a fault, it is that of overcropping. Indeed there is nothing out of a "Nursery" that so needs the clippers; except perhaps the catalogue. And unless Nurserymen will furnish a beginner's list, or plainly mark all those things which are "just (and generally) out," I do not know what will come to him.

Here, for instance, is a case—a bed—an equilateral triangle of 16 feet, whose solid contents are:—1st. 1 large China tree. 2nd. 1 immense Pittosporum. 3d. 1 large Gardenia; 1 small do; 4 Rose bushes; 1 Arbor Vitæ; 1 Spanish Jassamine; 1 grand "Cloth of Gold;" 1 large Geranium; 1 Border of mixed Jonquils and Box!

Fortunately, Nature came, in this instance, to the aid of Art; the Cloth of Gold took to the tree, and the Pittosporum rolled out of bed. At this juncture being called upon to prescribe, I suggested:—1st. A thorough purgation. 2nd. A border of hoghound. 3rd. A Mullenstalk in the centre—no foreigners to be admitted—and the spontaneous eruption of natives to be encouraged by warm guano water.

This will, of course, soon bring about the result aimed at by young Horticulture, viz:—"covering the whole ground," and is highly recommended by its simplicity and cheapness.

Far be it from me to tighten the curb so long as he merely kicks up his heels among the Evergreens; though it may be well to mention that even *they* require an eye to the future, with room above and room below and room all round; and that any tree which was properly planted a year ago is not so dreadfully "easy to thin!"

It is when he gets among the "flowering shrubs" that he does the damage, and I would hobble him by the following remarks:

1st. That many of them are entirely unreliable.

2nd. That the majority are beautiful at their "crisis," and a blemish, subsequently.

3rd. That a few are transcendent; but only under a nicety of treatment, compared with which Homœopathy is a humbug; and, lastly, that what *he* wants is something as handsome as it is game, and as game as it is handsome—something that he will never dig up without a pang, nor be without at any price.

Having pricked my fingers a good deal among the Roses, I will conclude with a list which I think approximates the above standard. For beauty of bloom and (what I deem equally important) persistent beauty in all their ways, they might have grown in Eden, but will grow anywhere.

1st. Souvenir de Malmaison. 2d. Triomphe de Luxembourg. 3d. Cloth of Gold, with ample room. 4th. Devoniensis. Then with a little more care, Geant des Batailles, Leon de Combat, Sylphide, Baron Prevost and one without a name, which I beg leave to christen "Evelyn," with a pyramidal habit and sub-evergreen foliage—such as all our Roses should have. And these, I think, will do for a beginning, if not for an ending.

F. O. T.

Torch Hill, Ga., Nov., 1858.

LARGE GRAPE STORY.

THE following, from the Philadelphia *Bulletin*, looks almost too large to be true; still the sort mentioned—Palestine—often comes very large, and possibly the bunch in question partook of the nature of two bunches in one. Pennsylvania is celebrated for large exotic grapes. We saw the largest we have ever seen in the country there—Black Hamburgs—some seven pounds weight:

"We saw yesterday an extraordinary production of grapes, consisting of a single bunch, or rather a series of bunches or sub-divisions on the same stem, weighing

seven and a quarter pounds, and measuring two feet across in each diameter, and two feet deep, and occupying a box of eight cubic feet. It was raised near Bordentown, New Jersey, at the country residence of George W. Childs, Esq., of the well-known house of Childs & Peterson, and presented by him to A. J. Drexel, Esq., the banker. The growth was of the variety known as the Palestine Grape, and this, we understand, was the first bearing of the vine. If this is a specimen of the production in the land to which it is indigenous, it fully accounts for the representations which we sometimes see in scriptural illustrations of men with poles upon their shoulders, bearing enormous bunches of grapes between them. A variety like this is worth the cultivation. We suppose there were from fifteen hundred to two thousand berries upon the bunch."

EDGAR SANDERS,
[in Emery's Journal.]

THE VINTAGE IN MISSOURI.—From the *Voxblatt*, published at the German settlement of Hermann, in Missouri, we learn that this year's vintage in the vicinity of Hermann, in spite of the poor prospects in the early part of the season, has been an average one. The quantity of wine produced will reach 25,000 gallons, which is highly satisfactory in view of the fact that last year's yield was enormous, and that the vines seldom yield two consecutive heavy crops. The yield per acre of the different vineyards is variable; three and four hundred gallons per acre being secured in some, while others afforded only fifty gallons per acre. In general, however, the vintners are well pleased with the result, and have no cause to complain of hard times.

THE PRESERVATION OF WINE.

WINE is sometimes sulphurized as a preservative, and often so excessively as quite to taint it. The sulphur is burnt in the casks and bottles, and then the wine is poured in. If, by chance, the sulphur is arsenical, then a slight dose of arsenic is administered to the public, far too innocent to understand whence comes the side-wind which blows them illness and disease. Cloves, cinnamon, lavender, thyme, and other aromatic substances, are used to weaken the influence of the sulphur, and the combination gives a peculiar taste and odour.

They are burnt in the casks together with the strips of linen dipped in sulphur, and the whole horrible medley of taste and smell passes for "bouquet" by the multitude, who believe what their wine merchants tell them, and praise according to price. In France, one-thousandth part of pulverized mustard seed is put in to prevent any after fermentation; but the greatest secret seems to be, to preserve the wine from any contact with the outside air.

Some Malaga wine, which had been buried during the great fire of London—that is to say, in sixteen hundred and sixty-six—was dug up twenty years ago, and though nearly two hundred years old, was found perfectly good, well-flavoured, and full-bodied. Exclusion of air alone would not have preserved it; sweet and alcoholic, it bore in itself the elements of longevity; had it not been poor in sugar and rich in acids, it would have been dug up a vinous skeleton. Wine kept in wood loses much of its water by evaporation; the same may be said of that kept in leather and skins. By this diminution of water, the alcohol remaining is concentrated and strengthened; but only originally strong wines can be so treated. With weak and acid wines, the very concentration increases the formation of tartaric acid, and that, without the proper counterbalance of alcohol, spoils all. This evaporation does not go on in glass bottles, and Saint Vincent therefore recommended that all bottles should be secured by bladders, not corks, so that evaporation might not be carried on in them. His advice has not been followed.—*Hunt's Merchants' Magazine*.

YUCCA GLORIOSA, [“Spanish Bayonet.”]—This fine, tropical-looking plant is not half so much patronized, as it deserves to be; for, independent of the rigid, uniform appearance its foliage always presents, no flowering plant, that we are acquainted with, can equal it for length of spike and number of florets expanded at one time. It is true, they do not flower well in every situation; but, where they do succeed, no plant of late introduction gives so distinct a feature as this Yucca. The *Yucca Gloriosa* is, perhaps of the yuccas, most highly esteemed, and a finer object when in blossom, can hardly be conceived. It is majestic, bold, and even grand. It is a common remark that every plant is a weed in its own country; but it would be hard to call this a weed, although we meet with a forest of them. Wherever it is desirable to impress an exotic character, wherever what is called “sentinels” are needed, and near to buildings of any kind, there the yucca will be found at home. The Irish yew is another most distinct and significant tree, wherever stiff formality or deep contrast is required. And then its color is so good; perhaps one of the darkest shades of green we possess.—*Horticulturist.*

THE USES OF AGRICULTURAL FAIRS.

It has been aptly remarked that there is something in these exhibitions which appeals most powerfully to our national tastes and sympathies. They attract larger masses of people together than any other class of entertainments. They have the same irresistible charm to Americans that bull fights have to the Spaniards, horse races to the English, monster musical festivals to the Germans, and grand fetes to the French.

We are an agricultural people, the great body of our population being dependent directly upon agriculture for their subsistence, and all other interests being deeply interested in and affected by, whatever promotes the prosperity of the farmer. As a general thing, those engaged in agriculture are prosperous, and when they have gathered in their summer harvests, and feel that they have well earned a little relaxation after their hard labors, they rarely lack the means to gratify their moderate aspirations for pleasure. But there must be something utilitarian, or at least a pretension to utilitarianism, even in the pleasure of an American. He does not feel easy at the idea that a day should pass by without making some contribution to his material progress. These exhibitions afford him a happy compromise between his usual routine of employment and his desire for recreation. He can gain at them new ideas of the great pursuit of tilling the soil from his brother farmers, see new implements, and find stimulants to his ambition and rivalry in the collections of superior stock which are assembled for his inspection.

But, whatever degree of pleasure and improvement may thus be derived from such sources and whatever charm may be thrown over these assemblages, by the array of talent which they not unfrequently call together, and the masterly addresses which are delivered at them, it cannot be concealed that the principal interest of those who attend these exhibitions seems to be, after all, centered in the “trial of speed” of horses, which forms one of their most prominent features. Love of excitement is an inherent principle of our natures, and it finds one of its most agreeable gratifications in witnessing the contests of our favorite animal. While horse racing is frowned down by the moral sentiment of the community, it possesses a fascination almost irresistible. Nothing rouses the human feelings and sympathies like a struggle in which two skillful antagonists contend with all the energies of their natures for supremacy. The passengers of a steamboat are ready to risk even their own lives rather than see a rival boat pass them on one of our rivers. The canvass of two strong candidates for a public office awakens so great an

interest that thousands become willing to devote their whole time for weeks to the success of their favorite. While the individual tastes of men go far to determine the character of the struggle which arouses their sympathies, nearly all will find some sort of a contest to interest them. The tournaments of the knights of the olden time enlisted the attention of whole kingdoms. The sanguinary taste of the Romans was best gratified in the terrific death-struggles of their gladiators. The Grecians delighted to crown the victors of their Olympic games. Santa Anna is never so happy as when he is witnessing what is now-a-days grandiloquently termed a “poultry tournament.”

If, however, it must be confessed that our national tastes have a keen relish for horse-racing, it is a source of gratification that public sentiment has demanded that these exhibitions should be freed from the contaminating and corrupting influences associated with the turf. While our people enjoy a display of the highest qualities of the horse, they are unwilling to countenance the wild frenzy of gambling excitement, which is an almost inevitable accompaniment of the regular race course. The “trials of speed” of our exhibition, as far as possible, give national enjoyment, under auspices which prohibit demoralization; and the standard of taste and appreciation of the horses is elevated by the variety of tests to which his qualities are subjected.

It is important that those who have charge of these exhibitions should be on their guard against making them too exclusively arenas for the mere exercises of the race-course. Speed is a great quality; but there are others, also, quite as well worthy of cultivation.—*Weekly Mississippian.*

THE HOME JOURNAL FOR 1852.

We have always regarded the *Home Journal*, edited by Messrs. Morris and Willis, as one of the best literary weekly newspapers published in this or any other country. The character of the matter, both original and selected, which fills its columns, is of a high order. The poetry of George P. Morris, the sweet song-writer of America, and the charming letters and pencilings by N. P. Willis, are themselves worth more than the subscription. The father of a family can do nothing better to amuse, entertain, and instruct himself and family, especially the female portion of it, than by subscribing for this paper. With 1852, a new series will commence, with which also begin a series of beautiful original works of fact and fancy, written expressly for the *Home Journal* by the best authors of America. Among other good things will be, a tale of sterling merit, by a lady, called “Two Ways to Wedlock;” a tale of the South, called “The Avenger,” by an eminent Southern author; and a tale called “The Young Wife’s Diary,” by a daughter of the West, with other tales of striking merit, together with a number of original comic stories. From this it will be seen, that the *Home Journal* offers as much, and better reading matter, than any other of the many family weekly newspapers. We heartily recommend it to all who wish to read a weekly newspaper of a refined, moral, entertaining and instructive character. As no more copies of the new series will be printed than are ordered, those who desire to begin with the commencement of the volume will be able to do so by forwarding their subscriptions to “Morris and Willis, No. 107 Fulton street, New York,” without delay.—*Easton Whig.*

IMMENSE CORN-CROP IN KENTUCKY.—The *Louisville Journal* says that the corn crop has never been so large in Kentucky as the present crop has been. It states that there are fields in the blue grass region estimated at 175 bushels to the acre, while fields yielding 75 to 80 bushels are quite common.

WASHINGTON AS A FARMER.

The following extracts from "Irving's Life of Washington," showing his love for country life, and his habits as a farmer, will interest our readers, if they love their farms as he did his.

In his letter from Mount Vernon, he writes:

"I am now, I believe, fixed in this seat, and I hope to find more happiness in retirement than I ever experienced in the wide and bustling world."

This was a deliberate purpose with him—the result of enduring inclinations. Throughout the whole course of his career, agricultural life appears to have been his *beau ideal* of existence, which haunted his thoughts, even amid the stern duties of the field, and to which he recurred with unflagging interest whenever enabled to indulge his natural bias. Mount Vernon was his harbor of repose where he repeatedly furled his sail, and fancied himself anchored for life. No impulse of ambition tempted him thence; nothing but the call of his country, and his devotion to the public good. The place was endeared to him by the remembrance of his brother, and of the happy days he had passed here with that brother in the days of his boyhood; but it was a delightful place in itself, and well calculated to inspire the rural feeling.

The mansion was beautifully situated on a swelling height, crowned with wood, and commanding a beautiful view up and down the Potomac. The grounds immediately about it were laid out somewhat in the English taste. The estate was apportioned into separate farms, devoted to different kinds of culture. Much however, was still covered with wild woods and indented with inlets; haunts of deer and lurking-places of foxes. "No estate in United America," observes he in one of his letters, "is more pleasantly situated. In a high and healthy country, in a latitude between the extremes of heat and cold; on one of the finest rivers in the world—a river well stocked with various kinds of fish at all seasons of the year, and in the spring with shad, herring, bass, carp, sturgeon, etc., in great abundance. The borders of the estate are washed by more than ten miles of tide-water; the whole shore, in fact, is one entire fishery."

Washington carried into his rural affairs the same method, activity and circumspection that had distinguished him in military life. He kept his own accounts, posted up his books, and balanced them with mercantile exactness. The products of his estate, also, became so noted for the faithfulness, as to quality and quantity, with which they were put up, that it is said any barrel of flour that bore the brand of George Washington, Mount Vernon, was exempt from the customary inspection in the West India ports.

He was an early riser—often before day-break in the winter, when the nights were long. On such occasions he lit his own fire, and wrote and read by candle-light. He breakfasted at seven in summer, and at eight in winter. Two small cups of tea and three small cakes of Indian meal, (called hoe-cakes,) formed his frugal repast. Immediately after breakfast he mounted his horse, and visited those parts of his estate where any work was going on, seeing to everything with his own eyes, and often aiding with his own hand. Dinner was served at two. He ate heartily, but was no epicure, nor critical about his food. His beverage was small-beer or cider, and two glasses of old Madeira. He took tea, of which he was very fond, early in the evening, and retired for the night about nine o'clock.

We find him working for a part of two days with Peter, his smith, to make a plow on a new invention. This, after two or three failures, he accomplished. Then, with less than his usual judgment, he put his two chariot horses

to the plow, and ran a risk of spoiling them in giving his new invention a trial over ground thickly swarded. Anon, during a thunder storm a frightened negro alarms the house, with word that the mill is giving way, upon which there is a general turn out of all the forces, with Washington at their head, wheeling and shoveling gravel, during a pelting rain, to stop the rushing water.—*Mt. Vernon Record.*

LIGHT IN STABLES.

STABLES should be so constructed, by the insertion of windows in various parts of the building, that they should be "light as day." A "dark" stable is only a suitable "black hole"—prison house for such a vicious specimen of the equine race as the notorious "Cruiser;" it is also the very worst location for any kind of animal. Sir A. Nylie (who was long at the head of the medical staff in the Russian army) states that the cases of disease on the dark side of an extensive barrack at St. Petersburg, have been uniformly, for many years, in the proportion of three to one, to those on the side exposed to a strong and uniform light. Humboldt has also remarked that, among bipeds, the residents of South America, who wear very little clothing—thus allowing the cutaneous, as well as the orbital surfaces, to receive a free ray of light, enjoyed immunity from various diseases which prevailed extensively among the inhabitants of dark rooms and underground locations, and so excellent an authority as Linnæus contends that the constant exposure to solar light, is one of the causes which render a summer journey through high northern latitudes so peculiarly healthful and invigorating. Dr. Edwards has also remarked that persons who live in caves or cellars, or in very dark or narrow streets, are apt to produce deformed children; and that men who work in mines are liable to disease and deformity.

Light, therefore, is a condition of vital activity, and in view only of preserving the sight of a horse, it is absolutely necessary that while he be the habitat of the stable, his optics shall have free access to the sun's rays.

If a horse was in the same condition as a polype, with no organ of vision, who shuns light, a dark stable might prove to be his earthly paradise, but as the horse has special organ of vision, evidently susceptible to the influence of light and the integrity of his organism, or a part of the same, depending entirely on the admission of light, it is absolutely necessary that stables should be constructed accordingly.—*Am. Vet. Jour.*

TO PREVENT SOWS FROM KILLING THEIR Young.

ABOUT two years ago we first mentioned what we have since seen tried and proved entirely effectual as a preventive against the killing of pigs by the mother—an unnatural, though by no means unusual proceeding on the part of some sows. The matter was again brought to our mind by a communication from E. G. Buxton, of Yarmouth, who says there has been an unusual loss of pigs in his neighborhood within a few weeks past, and recommends, as the easiest and surest preventive, to give the sow about half a pint of good rum or gin, which soon produces intoxication, and the drunken mother, unlike some human mothers, becomes entirely harmless towards her young, and will even accommodate her position to the best advantage of her pigs, and on her recovery from her "bender," she becomes so much civilized in her disposition as to eradicate all signs of savageness towards her young, and she will manifest all the motherly care that is due to her "pledges of affection." We also know of this remedy being tried by a neighbor of ours but a few days since, and proving entirely effectual, not only overcoming the disposition of the sow to kill the pigs, but making her as careful of them as could be desired.—*Maine Farmer.*

MOLES AND CHINESE SUGAR CANE.

EDITORS SOUTHERN CULTIVATOR—I see that one of your correspondents does not like the idea of killing moles with strychnine; but believes in letting them have full sway. Now it has been my plan, as it is many others, to kill all of the above mentioned pests that could be found; nor do I think it would be profitable to stop a warfare upon them; for, to my certain knowledge, they are very destructive to young cotton; and last spring they nearly ate all my peanuts; besides there are other depredations they commit.

I have been feeding the Chinese Sugar Cane, and find that it gives my horses a very bad cough. I should like to know from F. J. R., why it is so. It would afford me much pleasure to have my inquiry an inoculation of fruit trees answered if there can be any light given on the subject.

R.

November, 1858.

[What was the question? We have lost sight of it.—
Eds.]

MANUFACTORIES AT HOME.—It seems a great pity that the North can't learn to raise cotton, or the South to spin it.

So said Prentice, of the *Journal*, on the 7th July, and so we endorse on the 21st, and by way of helping along, we ask the planters of Hinds and Madison, who have money to enter land in the abolition States, if they would not act more to the interest of the country which supports them, by investing in manufactures. Rumor occasionally reaches us Americans, that Louis Napoleon, and Mr. Prince Albert are investing in America, looking out for some change by which they may lose their crowns. Is it so with these rich folks—afraid to lose their negroes—and they are making fair weather with the enemy.

If the South will manufacture all she needs, the Northern men will have to work to keep body and soul together. We have ever found the troublesome animals well fed. Do the Yankees as the man prayed about the preachers—"keep them humble, dear Lord, and we will keep them poor,"—put them on short rations and they will not meddle with any body's business save their own.

There is wealth enough in Hinds to build a large factory in Jackson, enough in Madison to build one on Canton, and in Warren for the largest size in Vicksburg, and if managed well, will pay as well if not better than cotton planting. Manufactories, unlike railroads, benefit all owners and citizens, whereas railroads seldom pay the owners.

We go not for a manufacturing community, but to make our own necessities, and would not object to see in the entire South all shirtings, sheetings, calicos, towels and linseys, including twills of cotton and wool. Negro shoes, hats, blankets, wagons, carts, plows, axes, hoes, &c., &c.—*Planter and Mechanic*.

FEEDING POULTRY.—Professor Gregory of Aberdeen, in a letter to a friend observes:

As I suppose you keep poultry, I may tell you that it has been ascertained that if you mix with their food a sufficient quantity of egg shells or chalk, which they eat greedily, they will lay twice or thrice as many eggs as before. A well-fed fowl is disposed to lay a large number of eggs, but cannot do so without the material of the shells, however nourishing in other respects the food may be; indeed, a fowl fed on food and water, free from carbonate of lime, and not finding any in the soil, or in the shape of mortar, which they often eat on the walls, would lay no eggs at all, with the best will in the world.

WASH YOUR HEAD.—One of the New York quarantine physicians, Dr. Bissell, in giving his testimony touching the matter of the late riots, stated it as his opinion "that, if a person's hair is washed and combed every day he is not liable to disease, because cleanliness of the person is always preventive. If a man were at work all day in the vicinity of the sick, and his hair wet with perspiration, the doctor don't think he would get the disease; but, if he let the hair get dirty and matted, he thinks he could not very well escape." The *Norfolk Herald*, in corroboration of this, says:

So important a result from so simple a cause may seem incredible to many, but not to us. There is not a more effective preventive of disease than the immersion of the head in cold water every morning, the year round. We know an old gentleman, now the ripe of seventy, who says that until he was thirty years old, he was of rather a weakly constitution, and particularly liable to attacks of bilious fever, violent colds, and headache; but having heard that the best preventive of headache was to wash the head in cold water every morning immediately after rising, he commenced the practice, and has continued it to the present time; and, during the interval of forty years, has never had the bilious fever; hardly knows what the headache is, and, though sometimes taking cold, has never had a cold that hindered him from attending to his ordinary affairs; add to this, he passed unscathed through the terrible epidemic of 1855. In other respects he has lived, ate, and drank as other people do, and has rather been inattentive to matters of hygiene.

ADVENT OF "JACK FROST" FOR TEN YEARS PAST.—A vast number of inquiries having been made to us by citizens yet staying away in our vicinity for some authentic data of the past by which to form some judgment of the probable visit of frost in the present season, we append the dates as taken from our yearly statements.

These dates are of what is termed a "killing frost," though in some a white frost appeared at an earlier period of the season. Still as these are not always reliable for clearing away the epidemic, we give those which are quite sure:

In 1848 there is none recorded.

In 1849 it was on the 26th of November.

In 1850 it was on the 17th of November.

In 1851 it was on the 6th of November.

In 1852 it was on the 27th of November.

In 1853 it was on the 25th of October.

In 1854 it was on the 14th of November.

In 1855 it was on the 24th of October.

In 1856 it was on the 8th of October.

In 1857 it was on the 19th of November.

Mobile Register.

A FACT WORTH A THOUSAND THEORIES.—One of the stationed preachers in Charleston states that the colored portion of his congregation pays one-third of the expenses of his church—their contributions amounting to \$1,000 to \$1,500 per annum; that the colored persons attached to the four Methodist Episcopal Churches in that city, contribute annually about \$1,000 to Missions. Is there a single church in all the free negro States where the hired white laborers are able to pay one-third of the church expenses? We doubt it, even including Lowell, the hot bed of abolition, and of bought free labor.—*Charaw Gazette*.

SOILS AND THEIR MANAGEMENT---MANURES.

The chief distinction of soils, in ordinary practice, is into heavy and light, wet and dry, fertile and sterile. A volume might profitably be written on their management, but space can be afforded here for a few brief hints only.

Heavy (or clayey) soils are easily distinguished by their adhesiveness after rains, by cracking in drought, and by frequently presenting a coddly surface after plowing. They are not sufficiently porous for natural drainage, but when thoroughly tile-drained, they become eminently valuable, as they retain manure better, and may be made richer than any other soil.

Sandy or gravelly loams have less strength, and may be more easily worked. They do not retain manure a long time. With a hard subsoil, they also require drainage. Sandy soils are easily tilled, but are not strong enough for most purposes, possessing too little clay to hold manure.

Peaty soils are generally light and free, containing large quantities of decayed vegetable matter. They are made by draining low and swampy grounds. They are fine for Indian corn, broom corn, barley, potatoes, and turnips. They are great absorbers, and great radiators of heat; hence they become warm in sunshine, and cold on clear nights. For this reason, they are peculiarly liable to frosts. Crops planted upon them must, consequently, be put in late—after spring frosts are over. Corn should be of early varieties, that it may not only be planted late, but ripen early.

Each of these kinds of soils may be variously improved. Most of heavy soils are much improved by draining; open drains to carry off the surface water, and covered drains, that which settles beneath. An acquaintance covered a low, wet, clayey field with a net-work of underdrains, and from a production of almost nothing but grass, it yielded the first year forty bushels of wheat per acre—enough to pay the expense; and admitted of much easier tillage afterwards. Heavy soils are also made lighter and freer by manuring; by plowing under coatings of straw, rotten chips, and swamp muck; and in some rare cases, by carting on sand—though this is usually too expensive for practice. Subsoil plowing is very beneficial, both in wet seasons and in drought; the deep, loose bed of earth it makes, receiving the water in heavy rains, and throwing it off to the soil above, when needed. But a frequent repetition of the operation is needed, as the subsoil gradually settles again.

Sandy soils are improved by manuring, by the application of lime, and by frequently turning in green crops. Leached ashes have been found highly beneficial in many places. Where the subsoil is clayey, which is often the case, and especially if marly clay—great advantage is derived from shoveling it up and spreading it on the surface. A neighbor had twenty bushels of wheat per acre on land thus treated, while the rest of the field yielded only five.

MANURES.—These are first among the first of requisites in successful farm management. They are the strong moving power in agricultural operations. They are as the great steam engine which drives the vessel onward.—Good and clean cultivation is, indeed, all-important; but it will avail little without a fertile soil; and this fertility must be created, or kept up, by a copious application of manures. For these contribute directly, or assist indirectly, to the supply of nearly all the nourishment which plants receive; it is these, which, produced chiefly from the decay of dead vegetable and animal matter, combine most powerfully to give new life and vigor; and thus the apparently putrid mass, is the very material which is converted into the most beautiful forms of nature; and plants and brilliant flowers spring up from the decay of

old forms, and thus a continued succession of destruction and renovation is carried on through an unlimited series of ages.

Manures possess different degrees of power, partly from their inherent richness, and partly from the rapidity with which they throw off their fertilizing ingredients, in assisting the growth of plants. These are given off by solution in water, and in the form of gas; the one as liquid manure, which, running down, is absorbed by the fine roots; and the other as air, escaping mostly into the atmosphere and lost.

The great art, then, of saving and manufacturing manure, consists in retaining and applying to the best advantage, these soluble and gaseous portions. Probably more than one-half of all the materials which exist in the country, are lost, totally lost, by not attending to the drainage of stables and farm-yards. This could be retained by a copious application of straw; by littering with saw-dust, where saw-mills are near; and more especially by the frequent coating of yards and stables with dried peat and swamp muck, of which many parts of our country furnish inexhaustible supplies. I say *dried* peat or muck, because if it is already saturated with water, of which it will often take in five-sixths of its own weight, it cannot absorb the liquid portions of the manure. But if it will absorb five-sixths in water, it will, when dried, absorb five-sixths in liquid manure, and both together form a very enriching material. The practice of many farmers, shows how little they are aware of the hundreds they are every year losing by suffering this most valuable of their farm products to escape. Indeed, there are not a few who carefully, and very ingeniously as they suppose, place their barns and cattle-yards in such a manner on the sides of hills, that all the drainage from them may pass off out of the way into the neighboring streams; and a farmer is mentioned, who, with pre-eminent shrewdness, built his hog-pen directly across a stream, that he might at once get the cleanings washed away, and prevent their accumulation. He, of course, succeeded in his wish; but he might, with almost equal propriety, have built his granary across the stream, so as to shovel the wheat into the water when it increased on his hands.

All neat farming, all profitable farming, and all satisfactory farming, must be attended with a careful saving of manures. The people of Flanders have long been distinguished for the neatness and excellence of their farms, which they have studied to make like gardens. The care with which they collect all refuse materials which may be converted into manure and increase their composts, is one of the chief reasons of the cleanliness of their towns and residences. And were this subject fully appreciated and attended with a corresponding practice generally, it would doubtless soon increase by millions the agricultural products of the country.—*Illustrated Annual Register of Rural Affairs.*

WATERPROOF.—For hats, boil 8 pounds of shellac, 3 pounds of frankincense, and 1 pound borax, in sufficient water. To waterproof cloth for sportsmen, dip it in a solution of acetate of lead, with a little gum and solution of alum (both solutions of the same strength.) For shoes, linseed oil 8 ounces, boiled ditto 10 ounces, suet 8 oz., yellow wax 8 oz.: melt.—*London Field.*

SENTIMENTS.—A wise government will not be slow in fostering the Agricultural interest.

Let every farmer who has a son to educate, remember and believe that science lays the foundation of every thing valuable in Agriculture.

**THE CAMEL--HIS NATURE, HABITS, AND
Uses.**

WASHINGTON, Nov. 29, 1858

To the Editors of the *National Intelligencer*:

GENTLEMEN: I observed in the *National Intelligencer* of the 24th inst., a re-publication of an article from the *Alabama Sentinel* "On the Uses of Camels," by a correspondent who signs himself "Jatros." The purpose of the article is to induce inquiry as to the usefulness of the camel in the production of corn and cotton, and on our plantations generally. Having been occupied now 10 years with the experiment of introducing the camel into this country, permit me to offer, through your columns, briefly, to "Jatros" and other inquirers, a few of the results of reading, observation, and thought upon these points. To do so concisely, and at the same time sufficiently, I will follow them in their order, as presented by your correspondent.

The climative range of the camel, within which he has been known, indisputably, to live, thrive, and be useful, may be stated at from 50° to 52° of north longitude. The mean temperature of this zone may be rated at from 50° to 68° Fahrenheit. As animals, we know, are diffused over the globe, first, according to zones of climate, and, second, according to degrees of longitude; and as we know that "camel land" and the United States are included in the same zones of climate; and as, further, the secondary order of arrangement (by longitude) is but of trivial importance, your correspondent is right in his supposition "that the camels would flourish in any latitude within the United States."

The cost of a camel, a good, serviceable one, landed at Mobile or Pensicola, may be put down at from \$150 to \$200—not more, I think, if the purchase and transportation are judiciously managed. The greatest expense in general will be in the freight. In any project, therefore, for the introduction of the animal, this must be the main item for close calculation. So far as the voyage is concerned, there need be no apprehension, for I know of no animal so little trouble at sea as the camel. I speak from a tolerably large experience in the transportation of horses and mules during our war with Mexico. So far as the motion of the vessel goes, whether in calm or in gale, one hundred camels would not cause as much anxiety or give as much trouble as ten horses.

The camel does not consume more food than a horse or mule; prefers a coarser diet; satisfies itself readily with either scanty grazing or browsing; requires feeding but once a day, being a ruminant; and would be with difficulty distressed for water. It requires no close stable; only a shed protecting it from cold northerly winds and from falling weather; and requires no grooming, though certainly healthier and better, like all other animals, for a clean skin. The camel is undoubtedly a hardier and tougher animal than the horse; not surpassed, if equalled, in these respects, by the mule; and with half the forage of either, and with two or three hours grazing or browsing, can be kept in condition. In addition to the economy of forage, the use of camels saves the outlay for wagons and carts, harness, shoes, and the necessary repairs of them. The pack-saddle being so simple in its construction as to be readily made on the plantations, its cost will be but a trifle. Its weight, moreover, compared with that of a wagon or cart, increases the physical energy devoted to the transportation of goods. For short distances, say about a plantation, or for six or eight miles on the road, a strong camel will carry, on an average, from eight hundred to one thousand pounds. The *Titulus* of Asia Minor, the produce of the double-humped Bactrian male on the single-humped Arabian female, will average, for the same distances, from one thousand to fifteen hun-

dred pounds. All of the statements in my official report of what was done by the camels under my direction in Texas are made from accurate weights and closely computed distances.

So far, the general advantages from using camels may be summed up as follows:

They will flourish as well in the United States as either horses or mules.

They may be introduced at Mobile or Pensacola at rates not greater, certainly not much greater, than present prices for good mules.

They are not as expensive to feed as horses or mules.

They require no close stables nor grooming.

They are as tough and as hardy as either horses or mules.

They save a heavy outlay for wagons, carts, harness, and shoes, and a constant tax for their repairs.

Their physical energy is not largely drawn upon for the draught of a wagon or cart, and therefore is proportionately given more usefully to the transportation of goods.

They will do more work at the same cost and keeping than either horse or mule.

These are the general advantages that I think may be fairly claimed for the camel. Now, let us examine how far this animal, with these advantages, may be suitable for our plantation or farm uses.

In Egypt I have seen the camel used in cities and in the country, on plantations, in fields, and on the road, for every purpose that horses and mules are used with us. I have seen them transporting bricks and broken stone from yards and quarries for buildings, sleepers, rafters, scantling, boards for flooring, &c.

I have seen them carrying chopped straw, corn, cotton, fodder, merchandise of all kinds, men, women and children, and with their burdens stepping intelligently and with sure-footedness into and out of clumsy ferry boats. And I have seen them usefully employed in carrying burdens on the dams and check banks of rice plantations. Is there anything more than these uses that our plantations and farms require?

As a Southern man, from a cotton, corn, and rice growing section, I believe that in many respects we might use camels with advantage in our agricultural labors, while pulling corn or fodder, or picking cotton, in transporting them from the field to the barn or gin house, in carrying seed, manure, fire-wood, &c., about the plantation, and in transporting produce and goods to and from the railway, or market.

So far as the negro is concerned, I am satisfied from a knowledge of the nature and habits of both, that no animal better suited to him in all respects than the camel can be given to his management.

That the preceding may prove of interest enough to find a place in your columns, and result in benefit to our country, especially to that section of it we both hail from, is my apology for trespassing upon you.

Very respectfully, your obedient servant,

HENRY C. WAYNE,
Major United States Army.

To CLEAN SPONGES.—When very foul wash them in dilated tartaric acid, rinsing them afterwards in water; it will make them very soft and white. Be careful to dilute the acid well, as it is very corrosive, and therefore, should be weak.

Time is the most precious, and yet the most brittle jewel we have; it is what every man bids largely for, when he wants it, but squanders it away when he gets it.

THE PEA AS A FERTILIZER.

EDITORS SOUTHERN CULTIVATOR—Enclosed you have one dollar—the amount of my subscription for your valuable journal for 1859.

There has been a great deal said in relation to peas as a fertilizer, but I have known of several cases in this neighborhood in which they have entirely failed for cotton, and I would like to learn the experience of others in the matter. About four years ago, I made the experiment myself, in this manner: I planted a small field of 4 acres in peas about the 1st of July. When they were ripe, I picked them, and, the vines being very luxuriant, turned them under, and the following spring planted in cotton. It was a failure. This year, two or three of my neighbors did the same thing, with the same result. Well, my faith in the pea for that purpose is not yet exhausted, and I am trying the experiment once more, with the addition of lime. Now, the question is, how much lime shall I use? (I mean the oyster shell lime.) Perhaps, after all, I may fail again; for, if the land is exhausted of alkaline matter, viz: potash, soda, magnesia, phosphoric and sulphuric acids and chlorine, there will probably be no good result. The field is high, dry and sandy, and has been in cultivation with various intervals of two, three, five and seven years, for fifty years. It has now been lying out three years.

The cotton crops on the seaboard are very short. I presume the gale of September cut them off generally about one-third—in many instances, more. The corn crops are pretty fair.

With best wishes for your continued success, I am,
Very respectfully, your ob't serv't,

BRYAN.

Way's Station, Ga., Dec., 1858.

TO ENRICH LAND--STOCK-RAISING, &c.

EDITORS SOUTHERN CULTIVATOR—The time has arrived for me to renew my subscription to your journal, and I avail myself of it to say something to the readers of the *Cultivator*, albeit little given to writing.

I have been a reader of the *Cultivator* for many years, and in every No. I have seen something about manures—hauling muck, barn yard manure, guano, and all the thousand and one things used in England and the North for manuring the ground—and I never have yet seen one that I thought was practicable, till the Dec. No. came out. "Stock Husbandry at the South" embraces the whole thing, and is the only way that lands at the South ever will be, or can be, enriched; 'tis nature's own mode, and by it our lands can be enriched, while we enrich ourselves; and for fear that there may be some who do not understand the manner of doing it, I will try and tell how: I knew of a worn out cotton plantation in Middle Tennessee that was made to produce 80 bushels of corn to the acre, on 300 acres, the first fall. One-half was sown in rye and clover; the rye fed down in the field by hogs, then grazed on the field till September; they were then turned into the corn field, and the whole fed off on the corn field (the farmer renting land to make his corn for winter use); this was sown in rye and clover, as the hogs finished a field (the corn field was divided in four parts.) That fall the farmer bought all the poor calves and sheep he could find, with sufficient beef cattle to graze the rye. During winter and next spring they were put on the clover, and by fall he had a fine lot of stock. The place was kept to grass for three years, and then put under the three field system; and, although never originally the richest land, it is now the most productive farm in Middle Tennessee—three years since, it took the certificate as 2nd best place, at the Nashville Agricultural Fair.

The whole secret is in having plenty grass, with plen-

ty stock to eat it. The system of farming at the South is different, and always will be. No large amount of manure will ever be collected in stables and barn yards, because cattle do not require housing all the time. If your land is so poor that grass will not grow on it, sow peas, feed off to hogs, turn under the vines, and sow rye or oats; feed off again, and sow peas, and so on, till your lands become rich; get you good plows of easy draft, that turn well; plow deep and often. Get the best stock you can procure; see them often; don't trust to any one; salt often—and you can furnish your table with good, wholesome meat, and be done with pickled pork from the North.

As to profits of sheep raising, we have made 150 per cent. since we commenced, although on a small scale—that is, \$220 worth of sheep netted us last year \$375, besides the lambs, which were a rather poor lot last year—cause: breeding in-and-in too long. Don't believe that any kind of stock will improve under such treatment. The Blakewell sheep, that so much has been said about, has always been a doubtful experiment. I doubt much if he did not cross them, for he seems to have been afraid some one would procure his stock.

Will the writers for your journal take a little advice? That is, don't interlard your writing with French and Latin phrases. The farmers, for whom they are intended, don't like it; they think that America is the best country, and the English language the best. Leave to milliners and French shop-keepers such stuff—let American farmers speak and write English. Yours,

DARDANELLE.

Arkansas, Dec. 8, 1858.

AGRICULTURE IN SOUTH CAROLINA.

Gov. ALLSTON, of South Carolina, in his last message, says:

The State Agricultural Society is dispensing much information and encouragement amongst farmers, whose domestic habits are not favorable to aggregation, and who, therefore, are always benefitted by the stimulus of agricultural exhibitions. District societies have been organized, and Fairs held at many places, in preparation for the great annual meeting of the State Society. The Fair just closed exhibited stock of all kinds, implements of husbandry, fruits and grain of superior order; besides, very numerous specimens of ingenious handiwork, many of which are but recently developed. The assemblage of substantial population was very great, among whom premiums were distributed to a large amount. The Executive Committee will publish, in the course of the winter, a volume of proceedings, in which will be found a programme of the Agricultural Schools in France:

* * * * *

Connected with a proposition to the last General Assembly to send a pupil to one of the agricultural schools of France, I received from the civil attention of the Minister d' Agriculture et d' Instruction a programme of the said schools, showing the course of instruction and the cost. This programme, of which I furnished a translation to the President of the State Agricultural Society in January last, was accompanied by a graceful tender from the Minister of France of his best offices towards a son of South Carolina, who should be recommended by the Governor.

THE PEN.—In the hand that knows how to use it, it is the most powerful weapon known. As the tongue of the absent, how cheering! When the golden tints of virtue guide it, how beautiful! When self-respect gives it new vigor, how pleasing! When honor directs it, how respected! When wit sharpens it, how fatal! When security wields it, how contemptible. "Tis the weapon of the soul."

HAVE A HOME.—Young men have lately written to us, asking: "Shall we marry, possessing only small means?"

If the means are adequate to meet the wants of the man and the future wife, why not? But they should be sufficient for this, else the most painful consequences may ensue. Moderate means are ample for the real necessities of life, which ought to satisfy human beings, so far as externals are concerned; insuring social and domestic enjoyment: meeting the real purpose of existence—their own advancement and that of others. But have enough for this. Have a home. Have a home, young man, before you have a wife.

At least have means to provide one. You have no business with an Eve till there is a paradise to place her in. Secure the garden, and the Eve will follow. If you are unable to provide an Eden, who ought to trust you with an Eve? Sacred as we regard love, we do not believe in divorcing it from common sense. This experiment is generally fatal to both happiness and respectability. Wake from mere dream-life, exert your energies; procure means by some kind of honest labor; secure a home; then ask your own heart, and the girl phenologically best adapted to you, the question, "Shall I marry?"—*Life Illustrated.*

A NEW SPECIES OF COTTON.—Mr. Thos. Smith, who resides in the immediate vicinity of Richmond, has a small field of cotton which is considered a curiosity by all who have seen it. It differs but little in appearance from the ordinary kind, except in color, which is as delicately crimson as a maiden's blush. Not only is the stalk of this gorgeous hue, but the leaves also, the vividness of color fading, however, as it approaches the margin of the leaf, into a purplish green. This is not the effect of disease or of any extraneous circumstances connected with its culture, but a peculiarity in the plant itself, every stalk possessing the same rich and healthful glow, and as thrifty as any cotton in the country. Where the seed originally came from we have not as yet ascertained. The prospect of a heavy yield is equal to that of any other species, bearing well boiled, and the weed of vigorous growth. We were shown the lint of a few bolls of last year's growth, and for fineness and length of staple we believe it not inferior to the sea island. If this cotton turns out as well as present appearances indicate, it will be a valuable acquisition to this branch of agricultural industry.—*Richmond (Va.) Reporter.*

A MERITED REBUKE.—We learn from the Macon *Telegraph* that at the late term of the Superior Court of Pike county, a master was convicted of cruel treatment towards a slave, and was fined four hundred dollars by Judge Cabaniss. We know nothing of the details of this particular case, further than stated above, but if any transgression against the law should be punished to the fullest extent of the penalty annexed, it is unnecessary cruelty to slaves. In fact, the cruelty practiced by some masters towards their slaves, has given abolitionism more capital to go upon than everything else combined, and such examples as set by Judge Cabaniss will go far to take the wind out of the sails of abolitionism.—*Exchange.*

NETTING HOGS.—The Kentucky rule is said to be, for the first 100 lbs. deduct 25 for gross; for the second 100 lbs. deduct 12 1-2; for the third 100 lbs. deduct 6 1-4; all over the third hundred is net. The net weight of a hog weighing 100 gross is 75 lbs.; a hog of 150 gross will net 118 3-4; of 250 gross 209 3-4 net; and a hog, the gross weight of which is 300 pounds, will net 256 1-4 pounds. From the gross weight of a hog that goes over 300, 43 1-4 pounds only is deducted, even should the weight be 400. This rule, if correctly stated, may be of use to somebody.

A FARMER'S LIBRARY.—Dr. Johnson being once asked whom he deemed the most miserable, replied, "The man who cannot entertain himself with a book on a rainy day." Were the question put, What farmers are likely to make the most rapid progress and improvement in husbandry? the answer would be, other things being equal, those who read most on the subject of their vocations. A man who reads little, no matter what his vocation is, will be likely to think little, and act chiefly with reference to tradition received from former generations, or else in imitation of what is going on about him. There is always hope of a man who loves reading, study and reflection. Not all who buy books liberally and patronize the press generously, are readers. There is a class of fancy book buyers who purchase freely and expensively, but who read little and profit nothing from the stores of knowledge treasured up in their libraries. Fine collections of books nicely arranged on shelves may satisfy desires of covetousness, but can impart little or nothing, only as they are read, studied, and referred to.

Every farmer, whether rich or poor, learned or unlearned, should have a collection of books on agriculture, horticulture, and the several subjects more or less intimately connected with the objects of his special pursuit. A few good books costing but little, should make the beginning of the farmer's library.

GUMBO SOUP.—Who has not heard of the famous gumbo soup of the South-west, and who has ever visited New Orleans without luxuriating on it, and declaring it the very best soup ever conceived? We have often wondered why it is not generally made throughout the South, where all the ingredients are easily obtainable. Here is a receipt for making it, furnished to the *Mobile Mercury*, by Mrs. L. H. Wright:

"After your chicken is prepared, fry it to a nice brown color; season it with black pepper and salt; have a large soup-plate full of okra; chop fine, throw away the heads of the same, as they are hard. Always use the long white, it being more tender and better flavored than the other kinds; stir in this with the chicken; and it will partake of the taste and seasoning of the chicken. Fry it a little, and have ready some boiling water, pouring over, say three quarts, and allow a sufficient quantity to boil away; let all boil down until the chicken becomes perfectly tender, so that it may easily be torn to pieces with a fork. If fried, it requires more pepper and salt, which should be added before it is thoroughly cooked. The gumbo thus made will be very thick. If you do not like it made in this way, do not boil so much, as it spoils all kinds of soup to boil down and fill up again, as many do, with cold water, and besides it is never so rich. Have rice boiled tender, but be careful that the grains are separate. Of course, it is both wholesome and rich."

THE SUGAR CROP IN PORTO RICO.—Advices from Porto Rico to the 27th ult., state that the island, after a long drouth had been deluged with rains, which had beaten down the cane fields and done some damage to the crops. The promise, however, was still highly favorable. The port of Aquadilla was visited by a severe hurricane on the 21st ult., attended with shocks of earthquake. One or two lives were lost. The shipping escaped with slight damage.

BE GENTLE WITH THY WIFE.

Be gentle! for you little know
How many trials rise;
Although to thee they may be small,
To her of giant size.

Be gentle! though perchance that lip
May speak a murmuring tone,
The heart may beat with kindness yet,
And joy to be thine own.

Be gentle! weary hours of pain
'Tis woman's lot to bear;
Then yield her what support thou can,
And all her sorrows share.

Be gentle! for the noblest hearts
At times may have some grief,
And even in a pettish word,
May seek to find relief.

Be gentle! for unkindness now
May rouse an angry storm,
That all the after years of life,
In vain may strive to calm.

Be gentle! none are perfect—
Thou're dearer far than life;
Then, husband, bear and still forbear—
Be gentle to thy wife.

FANNY FERN.

Domestic Economy and Recipes.**DYSPEPSIA---INFALLIBLE REMEDIES.**

We publish the following remedies by request, with the assurance, from the gentleman who furnishes them, that they never fail of effecting a cure:

No. 1.

One oz. Virginia Snake Root, 1 oz. Aloes, 1 oz. Ginger, 1 pint Molasses, 1 pint Cognac Brandy, best. Put in a pot and boil slowly for twenty minutes, and then strain and cool, and bottle and cork tight. Take every morning, on an empty stomach, one teaspoonful; if it operates too much, take less; if not enough, take more. Take it regularly. If you use tobacco, quit it at once.

No. 2.

Take 4 ozs. of Sarsaparilla, bruised; 1 oz. of Senna, 1 oz. Quassia. Put it into 2 quarts of Whisky and set it in the sun for three days; shake occasionally. Take three drams a day, just before eating.

CURE FOR DISTEMPER IN DOGS.—To a grown dog give half a tea cupful of Castor Oil. If that does not cure, repeat the dose the third day, which I have never known to fail in making a cure. F. H. C.

Jasper County, Miss., 1858.

VALUABLE RECIPE.—In ninety-nine cases out of one hundred, Cranberries applied as a poultice will effectually cure the erysipelas. There is not an instance known where it has failed to effect a cure, if faithfully applied before the sufferer was in a dying state. Two or three applications generally do the work.

PINT CAKE.—One pint of dough, one tea-cup of sugar, one of butter, three eggs, one teaspoonful of pearlash, with raisins and spices.

NEW AND VALUABLE SOAP.—An improvement in the manufacture of soap is noticed in the English papers, consisting in the addition of sulphate of lime to the usual ingredients employed in its manufacture, and by which it is made hard and durable. The sulphate may be added to the soap in a dry powder, or in admixture with any of the usual ingredients employed in the manufacture of soap. The proportions of the sulphate which it is best to employ vary according to the article to be manipulated upon and the quality of the soap to be produced. Thus, about twelve ounces of dry sulphate is sufficient for one ton of the best soap; whereas, in common or highly liquored soap, six or eight pounds are used with advantage. Soap made with the addition of sulphate of lime becomes hardened, keeps dry, and is not liable to shrink while in water; its durability is increased, and it does not wear or waste away before its cleansing properties are brought into action.

CURE FOR COUGH OR HOARSENESS.—A correspondent of the *Charleston Courier* gives the following:

Chip up fat lightwood and put a handful of the chips into a pint of common spirits. A teaspoonful in a wine-glass of water on going to bed will cure a hoarseness, and if taken three times a day, or whenever a cough is troublesome, it will effect a speedy cure. A few chips thrown into a hot shovel and the odor breathed, will be found serviceable in lung complaints, and is calculated to relieve asthma. This is much cheaper than "Cherry Pectorals," and equally efficacious.

TO REMOVE INK STAINS FROM PRINTED BOOKS, &c.—Procure a little oxalic acid, which dissolve in a small quantity of warm water, then slightly wet the stain with it, when it will disappear, leaving the text uninjured.

SWEET POTATO WAFFLES.—Two tablespoonsful of mashed potato, one of butter, one of sugar, one pint of milk, four tablespoonsful of wheat flour; mix well together and bake in a waffle iron.

SOFT CAKES IN LITTLE PANS.—One and a half pounds of butter rubbed into two pounds of flour, add one wine glass of wine, one of rose water, two of yeast, nutmeg, cinnamon, and currants.

JUMBLES.—Three pounds of flour, two of sugar, one of butter, eight eggs, with a little caraway seed; add a little milk, if the eggs are not sufficient.

TEA CAKE.—Three cups of sugar, three eggs, one cup of butter, one cup of milk, a small lump of pearlash, and make it not quite as stiff as pound cake.

RAISED WAFFLES.—Make a thick batter of milk and wheat flour, add four eggs, beat light a gill of yeast, a spoonful of butter; let it rise some hours.

FOR WEAK EYES.—Two grains acetate of zinc, in two ounces of rosewater; filter the liquor carefully, and wash the eyes night and morning.

PAIN IN THE STOMACH, WITH COLDNESS OR WIND.—Swallow five or six grains of white pepper, for six or seven mornings.

TO DESTROY CRICKETS.—Put Scotch snuff upon their holes. Cockroaches may be banished by red wafers. Paint is destructive to all insects and so is lime.

SOUTHERN CULTIVATOR.



N. ORR, S. Y.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE

VOL. XVII.

AUGUSTA, GA., FEBRUARY, 1859.

NO. 2.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M. D., and D. REDMOND, Editors.

I See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—Break up land for Corn *deep*, using the subsoil plow, and apply all the manure you can procure. Plant as early as is consistent with safety. Prepare land for Cotton, throwing up deep and mellow "beds," so as to get a good stand as early in the season as possible. Spring Oats should now now be sown—Irish Potatoes planted and Sweet Potatoes bedded out for a supply of "draws." Fences must be now repaired, and Hedges set as soon as possible.

THE VEGETABLE GARDEN.—The operation of the Gardener must now commence in good earnest. In order to secure a regular and abundant supply of good vegetables, the garden must be put in a thorough condition at once. Let it, however, be remembered that the soil should never be stirred, nor any seed be planted while the ground is wet; in fact it must be dry enough to crumble easily, when raked over. See remarks of last month, under this head, a l of which will also do for this month; and if any crop, that was put in before, has been destroyed by frost, let it be renewed.

English Peas may now have a careful hoeing, drawing a good ridge of soil to them, particularly on the northern side.

All vegetable seeds, except Cucumbers and Musk Melons, may be planted from the middle till the latter part of this month, as Beets, Spinage, Parsnips, Salsify, Lettuce, Turnips, Onions, (black seed) Cabbage for succession, &c.

During the latter part of the month, Cabbage plants may be set out for a crop.

Okra seed may be planted; if put in rather deeply, say covered with a couple of inches of soil, it will be safe and ready to start as soon as the season will permit. Plant Irish Potatoes, and if any of the former planting have come up, hoe and draw the soil up, so as to cover them completely, and they will soon appear, again.

By the middle of the month, Water Melons and a small

crop of early Corn may be put in; Adams' Early, and White Flint Corn are the best varieties.

Now is also the time to sow Colza seed. Plant the seed, during the first week of February, and you may have excellent greens in four weeks.

If Hot Beds have not yet been prepared, do it at once.

Where Sweet Potatoes are wanted early in the summer, put out your sets in a hot bed, that you may have an abundance of draws to set out by the first of April.

THE ORCHARD AND FRUIT GARDEN.—Set out the Peach, the Plum, the Apple, the Pear, the Quince, the Fig, the Pomegranate, the Grape, the Strawberry, the Raspberry, and all other desirable kinds of fruit and ornamental trees and vines. Examine Peach trees for the worm, and Apple trees for the borer, and dig those predators from their hiding places with the sharp end of your knife.—Heap leached ashes around your Peach trees from the "collar" to the height of 2 or 4 inches above the surface of the ground, or pour boiling water around them as heretofore directed. Work around all your fruit trees, stirring the ground well a little farther than the branches extend, and apply a good top-dressing of manure. Cover the surface around newly planted, and all delicate trees, and shrubs, with leaves, pine straw, or loose manure, to the depth of four or five inches, so that the roots may be protected.

THE FLOWER GARDEN.—Plant, at once, all Bulbs, such as Hyacinths, Tulips, Crown Imperials, Dahlias, &c., &c. Sow tender Annuals in hot beds, and prick out into open ground as soon as all danger of frost is over. Dress and trim borders; plant edgings of Box; spread gravel on garden walks, and roll the surface firmly; plant ornamental Hedges or screens of Arbor Vitæ, Wild Olive, Euonymous, Privet, &c. Prune Roses and other ornamental shrubs. Set out rooted plants, and cuttings of the Rose, Cape Jasmine, and other flowering plants. Stake all newly planted and plant shrubs. Prepare ground for lawns, by plowing very deep, (subsiding 18 inches) manure highly and sow a liberal allowance of mixed seed, such as Kentucky Blue Grass, White Clover, Herds Grass, Texas Musquit, Italian Ray, &c., &c. When sown, roll smoothly with a cast iron or stone roller, and keep off all owls, pigs, cattle, &c.

ESSAY ON AGRICULTURE.

SCIENCE and Art, which are designed by nature as twin sisters, for the mutual benefit and support of each other, have been from time immemorial alienated and estranged by the artifices of designing man; but, I thank Heaven, they are becoming happily reconciled. Science, tired of spinning hypothetical cobwebs in secret, has at length found out that she is indebted to her long despised sister, not only for the comforts of life, but even for the instruments with which she makes her discoveries; and Art, finding herself no longer insulted, instead of grouping in darkness as heretofore, is now making rapid advances, in the prosecution of her labors, as she pursues them by the light of Science. Every branch of the useful arts is now assuming an improved character, as it begins to be conducted upon scientific principles; but in no branch whatever is the knowledge of these principles of more importance than in Agriculture.

The Art of Husbandry is unquestionably the most ancient of all. Scripture informs us, that Adam was sent from the garden of Eden to labor or cultivate the ground. From the earliest accounts of the nations of the East, Agriculture was carried on by them to considerable perfection.

As soon as the descendants of Abraham were settled in Palestine, they became husbandmen, from the highest to the lowest; high birth and rank made in this no distinction; for Agriculture was considered the most honorable of all employments. Of this the history of Gideon, of Saul, of David, furnishes illustrious examples. The Chaldeans, who inhabited the country where Agriculture had its birth, carried that art to a high pitch of improvement. The Egyptians, from the fertility of their soil, enriched by the overflows of the Nile, raised vast quantities of grain, for the use of other nations, as well as for their own wants. In the purest days of the Roman Republic, to be called an industrious husbandman, was the highest encomium that could be bestowed on an illustrious character—as witness Cincinnatus, who was taken from the plough to command the Roman legions. Honorable mention could be made of Cato, of Phocion and others. It was the practice among the ancient Persians, for their Kings, once in every month, to lay aside their grandeur, and eat with husbandmen; the precepts of their religion included the practice of their agriculture; it was even a maxim in their sacred books, that he who sowed the earth with diligence and care, acquired a greater degree of religious merit, than by the repetition of ten thousand prayers. The ceremonious respect bestowed on Agriculture, in China, is well known: there the husbandmen enjoys many great privileges, while the tradesman and mechanic are held in comparatively little esteem. In the beginning of the spring of every year, the Emperor in person, attended by the chief men of the State, repairs to a field prepared for the purpose, and there with his own hands holds the plough, and turns up several furrows; the Princes and Nobles do the same after him, according to their rank; then the Emperor sows the seeds of wheat, rice, millett, and beans, and covers them over with the soil. Even in England, to this day, they have ploughing matches, and the honor of bearing off the trifling prize of a silver cup is boasted of from father to son.

The prejudices of farmers against all innovations upon their established habits, are as old as Agriculture itself. In the dark ages of superstition, a man who by any improved method, continued to grow larger crops than his fellows, was supposed to use supernatural means, and if he escaped prosecution as a wizard, was at least shrewdly suspected of dealing with a power, whom his pious neighbors carefully avoided. Why should the light of Science be hidden from the husbandman, and applied to

the more learned professions, when Agriculture requires its aid, and has more imperative claims upon the sublime mystery, than all the professions besides? Farmers have to make more use of the powers and laws of nature, than other professions: they have to use the elements for tools; they are, indeed, practical chemists, for they have to make use of the various substances which nature has given them; they have to combine, separate, modify and change both simples and compounds; their farm is at one and the same time a laboratory and a workshop, and in proportion as they operate in such a way, as to afford the several elements, of which the substances are composed, and upon which they are operating to disunite and to combine, will be their success; they depend upon the vegetable world for a subsistence; their labor is upon and among the plants on the earth; they have to change the state of it and adapt it to the seasons and the crops; they have to "discern the face of the sky," and watch the changes of the weather, and regulate their movements accordingly; they must use tools or implements of labor; they must take advantage of the principles of mechanics to practical life; and in this country they have to contribute largely to the support and formation to the government, for upon them depends the election of rulers and law-makers; they have to administer to the sickness of animals under their charge, heal wounds and restore health. Indeed, so wide is the field of his labors, so numerous the subjects with which he is connected, so various the operations which he has to perform, we verily think the farmer ought to be the most learned man upon earth, for his whole business of life is a series of illustrations of the principles of science, and his whole establishment is a scientific laboratory.

You will not object to giving learning to the man who labors for our spiritual good—to the lawyer who settles our temporal disputes, or to the physician who heals our maladies; then why in the name of common-sense is it not equally necessary for the farmer? I would not dispute with either of these professions for the monopoly of the dead languages, but for the ever-living Sciences, for mathematics, mechanics, chemistry, botany, zoology, and their subordinate branches, I contend, that where a clergyman, or lawyer, has one professional occasion for their use, a farmer has fifty. By botany and chemistry, he learns the physiology of his plants, the nourishment and treatment they require, and by analysing the soil, he discerns what is necessary to maintain and increase its fertility. Zoology and natural history teach him the characters and constitution of his animals, and mechanics the structure and use of his instruments. There is no doubt but those who have no faith in book farming will smile at the idea of a college learned farmer; but how many things have been smiled at as ridiculous at one period, and at a subsequent time hailed and applauded as wonderful improvement? The clergyman, lawyer, and doctor, by common consent, are made learned professions; but poor Agriculture, whose hand sows the seed, and whose arm gathers the harvest and the vintage, on which all our earthly comforts, and indeed our very existence depend, she can't be allowed to teach her sons the most valuable of all arts! No matter; we are nothing but "clod-hoppers;" if we have learnt our letters, and can read our bibles, what more can we want to know?

Let the disciples of the old school ridicule "book-farming," and laugh at the idea of our sons being sent to college to learn to hoe corn; but, as I have intimated, the spirit of improvement is abroad. If we are charmed upon viewing a garden upon a small scale, the work, perhaps, of a single but skillful individual, how infinitely more charming must be the view of three or four hundred acres planned and laid out with the accumulated skill of ages, and viewed by the broad light which Science has thrown upon the subject, with all the beauties of the vegetable

world, and all the useful of the animal—could any earthly prospect be more delightful?

Although other avocations may offer the greatest prizes in the "lottery of life," yet if we compare the advantages of rural industry with those of any other of the common occupations to which men devote themselves, we shall find that he who is engaged in Agriculture, has no reason to be dissatisfied with the lot which fortune has assigned him. Its superiority in point of salability over any sedentary employment is too apparent to require illustration—and it affords more of those common enjoyments, which constitute much of the elements of happiness, than any other state of equal mediocrity. The farm yard, the orchard, and the dairy, supply almost without expense, abundant means for those gratifications usually termed the comforts of life, besides many luxuries beyond the reach of people of humble fortune. Few persons are indeed insensible to the difference of mere animal existence as enjoyed by the farmer who passes his days in the healthful labors of the field, and that of the mechanic or the shopkeeper who wears away his life at the bench or the counter. But it is not in these alone that the advantages exist; of all the feelings which we cherish, none is dearer than the consciousness of independence, and this no man who earns his bread by the favor of the public, can be said to enjoy to an equal degree with the farmer. Traders, as well as those termed professional men, are rivals, jealous of each other's success, and let this be what it may, they still owe a deference to the world which is often galling to their spirits; but the farmer fears no competition; individually, he has nothing to apprehend from the success of his neighbor; he solicits no preference, and he owes no thanks for the purchase of his produce. His business, though subject to more casualties than almost any other, is yet so divided among many risks, that he is rarely exposed to the hazard of total failure; the same weather which often injures one crop, improves another, and the very difficulties of a critical season, opens a field of exertion, by which he is often gainer. Possessing on his farm all the means of life, he is under no corroding anxiety regarding his daily subsistence. He is removed from those collusions of interest, and struggles for precedence, which rouse the worst passions of the heart; and his constant observations of the benevolent dispensatory of Nature, for the care of all her creatures, can hardly fail to impress him with a deep sense of that religion of the heart which consists in the conviction of, and reliance upon, the care of an all-ruling and all-bountiful Providence. And to borrow the sentiment of a distinguished French nobleman—"I could wish to inspire all the world with a taste for Agriculture: it seems to me impossible how a bad man should possess it; there is no virtue I do not attribute to him, who loves to talk of farming and to conduct it. Absorbed in this passion, which is the only one that increases with age, he daily overcomes those which derange the calmness of the soul, or the order of society, when he passes the limits of the city, (the seat of moral and physical corruption,) to go and work on his lands, or to enjoy them, his heart rejoices at the sight of nature, and experiences the same sensations on his lungs, on receiving the pure air that refreshes him."

Nothing tends more to enlarge the mind, and extend the sphere of our rational pleasures, than the contemplation of the economy of nature; and to those whom fortune has placed above considerations of pecuniary advantages, but who set due value on intellectual enjoyments, the study of Agriculture offers an inexhaustible fund of amusement, as well as instruction. The same objects, seen in a variety of aspects, present an infinite variety of feature; and the most slender stock of appropriate knowledge, if aided by habits of observation and research,

may be eminently useful in ascertaining facts hitherto unknown or unrecorded, and in thus illustrating Agriculture, which, however sedulously it has been explored, still opens a wide field for inquiry, while even if not fortunate in the attainment of any material benefit, the mere occupation of the mind in tracing the origin and progress of any novel improvement, will be found productive of the purest gratification. As the soil, however rich, says Seneca, cannot be productive without culture, so the mind, without cultivation, cannot produce good fruit.—*Virginia Farm Journal.*

HORTICULTURE AND AGRICULTURE.

EXTRACTS FROM AN ADDRESS BY JOHN C. CARMICHAEL, ESQ.,
OF GREENBRO^G, GA.

"For ages, and in all countries this subject (Horticulture) has occupied a portion of the attention of those who formed a taste for the beautiful in Nature. Where is the man who can look at a flower and say that it is not beautiful? The culture of flowers develops our finer feelings and softens our nature. Show me the lady who does not possess, a taste for flowers? and I would say, if I was in search of a wife that she would not be selected by me to occupy that position. The Duke of Richmond, having heard of a rare plant in India, dispatched a special messenger for it, who conveyed it to England at an expense of \$10,000. The Emperor of Japan, wishing to bestow a mark of courtesy upon a distinguished personage, sent him a gold snuff box containing a rose and two other plants growing beautifully. The gardens of the Japanese are all on a small scale, and all of the plants are dwarfed down to the smallest size. The Japonica is the Rose of Japan, but does not compare with Japonica of our own happy land, which has been beautified by horticulture, and whose petals have been largely increased in numbers, and whose colors have been increased by art and taste. The handsome Tulip, now almost neglected, once held its sway in Holland, and the excitement became so great that a single bulb sold for \$5,000. * * * *

You, doubtless, have heard of the Rose of a hundred leaves. I once plucked a rose, cultivated by my own hand, which had one hundred and eighty eight distinct petals or leaves. It was known as the *Souvenir de Malmaison*.

More than seven hundred different Roses are now known, and the number and variety is being increased by Horticulture. Some of them are beautifully striped. Some are of all the shades of red, and some are as delicately tinged with the pink, as the Maiden's Blush. The different shades of white, the delicate straw color—the Cloth of Gold. The Green Rose, whose discovery was so soon followed by the Blue Rose, and they vary in size from the dime to the saucer.

It is a source of deep regret that so little attention is paid to the subject of Horticulture. Our Agriculturists have it in their power to develope many of the beauties of one science with another, by adding the beautiful to the useful. In all the cities of the North, the proper attention is paid to the culture of the handsome little emblems, which have been considered more beautiful than was Solomon in all his glory. "Consider the Lillies of the Field; they toil not, neither do they spin; yet Solomon in all his glory was not arrayed like one of these." * * * *

The Cemeteries attached to the beautiful cities of the South, during the spring and summer months, are laden with flowers. Those belonging to New Orleans, and particularly the one appropriated to the French portion of its population, is magnificently decked with bouquets of the choicest flowers, which are arranged with truly artistic taste. This is particularly the case on "All Saints Day," which is the 1st day of November of each year. The

French employ the *immortelles* to perpetuate the memory of the dead, and few years ago, the celebrated field of Waterloo was covered with the Forget me-not. The Magnolia is the pride of the South, where it only exists, except in hot-houses. The variety known as the Grandiflora, attains to a very large size, and bears a splendid flower of a rich creamy white, and the odor is truly delightful to the senses. The Spireas are in their perfection during early spring, and are beautiful on account of the extreme delicacy of their formation. "In eastern lands they talk in flowers," and what language can be more beautiful? and what would we be without the softening influences of flowers? Oh! they have been my solace; and now deck the narrow houses of six members of my family, and as long as my life is spared these sweet emblems of affection shall be nurtured by my hand and watered with a tear. The Cemetery at Augusta, now so attractive and so beautiful, was once a wild waste, with not a flower or shrub within its walks; but now the hand of vandalism is checked, and taste and order everywhere prevail.

In the culture of plants and flowers we should allow nature to hold its sway, except in cases which require some control by the hand of man, who should be governed generally by its laws; yet I have seen in the Rooms of the Horticultural Society of Boston, a Grape vine, which did not exceed 14 inches in height, and which bore a bunch of grapes the length of the height of the vine.

The Cotton blossom is beautiful; but does it merit all of our attention? and should we be so much charmed with it as to abandon all others for its sake, simply because our fathers did so before us. This is the age of progress and improvement. Where is there a more beautiful country for the culture of the Grape, small grain and the raising of Stock of all kinds?

Clover will grow here, and with the Bermuda Grass, too. A root of the Clover has been traced in this State for 30 inches. I know lands in the State of New York, which have been planted in wheat and clover for 50 years, and which cannot be purchased at any price, and which will be valuable as long as time lasts. Our system is exhausting. Hillside ditching is all important to our interest as well as a change in our mode of progress in the old paths of those who have gone hence.

Systematic writers on agriculture, and most others, when treating of the various plants usually cultivated on a farm, always describe their characteristic in botanical phraseology; and though this way of describing them seems a proper one, when different genera of plants have to be distinguished from each other; yet when mere varieties of the same species, and especially when these varieties are numerous have to be treated of, a more natural method of describing them seems desirable, so that they may be easily distinguished by other people than botanists. Thus, Professor Low, when treating of wheat, enumerates eleven sub-divisions which are cultivated, all which, doubtless, form distinct characteristics; but the distinctions between them are not likely to be apprehended, far less applied by the majority of farmers; and much less likely are they to discriminate, with botanical accuracy, between the very numerous kinds that are cultivated in different parts of the world. Lawson's Agricultural Manual describes eighty-three varieties of wheat. Col Le Conte mentions having in possession one hundred and fifty kinds of wheat; and the Highland Agricultural Society of Edinburg, as early as the year 1836, found 141 varieties. To distinguish between all these with botanical exactness would puzzle any farmer. The ancients used to preserve grain many years to serve for food, when years of famine overtook them. When Joseph was in Egypt, wheat was preserved 7 years in the stores; but that might not be a difficult matter in a climate so dry as Egypt.

The Romans preserved wheat in their granaries for 50 years, and Millet 100 years, underground. This plan is pursued in Russia to this day. The wheat crop of the United States is about 100,000,000 bushels. That of Ohio 20,000,000; New York and Pennsylvania 16,000,000 bushels each. Col Le Conte divides all the varieties of wheat into two classes, namely: bearded and beardless, so far he imitates the modern botanists, who divide the cultivated varieties of wheat into two divisions, signifying the above characteristics; but, unfortunately for the stability of this division, the distinction is mutable, for some bearded wheats lose their beards on cultivation, and some beardless ones are apt to become bearded, when cultivated on poor soils and exposed situations. Of Barley Mr. Lawson describes 20 varieties, while the Museum of the Highland and Agricultural Society has 30 kinds. The Barley crop of the United States, in accordance with the last census, was 4,162,000 bushels.

Oats are cultivated on a large extent of country in Scotland, and it is believed that no country produces greater crops of them or of finer quality. There are 51 varieties of them known.

Rye was known in Egypt 3300 years ago; but one kind was known in that country, though 7 varieties are to be seen in the Rooms of the Highland and Agricultural Society of Edinburg.

Red rust has been known for 2562 years, or 704 years previous to the birth of our Saviour, and no remedy has ever been discovered for this scourge to the planter. The ancient Romans even resorted to the destruction of all the female red dogs, during the appearance of the Dog Star, but without success.

TOBACCO---EARLIEST AND BEST MODE OF Raising Plants.

To raise tobacco plants early and successfully, is a great secret. People often fail to get early pants, because they do not take sufficient pains to put in the tobacco seed; nor do they make their beds in the right location, and put them in a suitable condition for the rapid growth of the plant. A tobacco seed seems to be slow to start, unless you resort to the most ingenious means to force it to swell and sprout.

The earliest, and perhaps the best mode of raising tobacco plants, is as follows:

Prepare a bed, 40 feet long and 10 feet wide, in a warm place where the sun will help enliven the soil; pulverize the ground thoroughly and deeply, and in the meantime work in fine manure, free from foul seeds, so that weeds will not come up among the plants; rake down the surface of the bed smoothly and nicely; and after you have thus perfected a kind of hot-bed—not at all expensive to make—and when you are satisfied that the ground is warm, or in a satisfactory state to receive the seed, sow it on the bed at the rate of three ounces for a plat of ground of the above size. But, before sowing the seed, prepare it in the following manner: Put three or four ounces into a tightly made woolen bag; moisten it with warmish water, and then hang it up behind the stove in a warm location. It will soon begin to show signs of sprouting, (it should be watched;) and having found out that it is about to germinate, by its swollen condition and other indications, sow it on your bed in connection with two or three quarts of dry sand or Indian meal. The surface of the bed should be pressed down with a heavy plank before sowing the seed, and never rake in tobacco seed; but, after you have distributed it evenly over your plat of ground, either roll it in with a hundred pound roller made for the purpose, or tread it in with your feet. Some press it in with a plank. About the 15th or 20th of April is the time you should sow your seed, if the ground is passably warm. Some sow earlier and some sow later. [First of March, in the South.]

Now for the glass sash work over the bed—the sash made long and not too wide. Some do, and some do not use them. They should be placed over the bed, and the sun soon produces its good effects through the glass upon the surface of the soil, warming it into activity, and thus starting the little plants into active vegetable life! The glass also protects the plants from frost; but mind you when the sun shines warmly, be careful that by reason of its effects through the glass, it does not burn up your plants. After the plants have got up reasonably large—as large as a dime, for instance—the glass fixtures may be removed; and then you can dash on your liquid manure evenly with a tin watering sprinkler. You will be surprised to see the rapid growth of the plants, raised and managed in the above manner.

The bed should be thoroughly weeded, and judgment should be used in selecting a plat of ground as free as possible from foul seeds. Sandy soil is, on the whole, the best for the plants. Fine horse or hog manure is the best to incorporate with the soil of the bed.

In a few days after the plants get a start, they will be fit to set in the field in rows three feet and a half apart one way, and two feet the other.

I believe I am right in saying that, to be a successful tobacco raiser is also to be a successful plant raiser. Raising tobacco is a trade; and in our Northern States, where a good deal of it is raised just now, the plants should be set early, and thus you will secure your crops early, and no fear need be apprehended that it will not cure.

Hereabout, a large quantity of tobacco is raised annually. Much patience is required to raise it, as in the cultivation of all other plants.

T.

[in *Genesee Farmer*

PROTECTION OF PLANTS FROM INSECTS.

UPON looking over the "Revue Complementaire des Sciences Appliquées à la Médecine et Pharmacie, à l'Agriculture, &c., par F. V. Raspail. Bruxelles, 1854, 1855," my attention has been called to an article by the author, on the "Use of Aloes as a Preventive of the Attacks of Insects upon Vegetables."

I consider the subject a highly important one. As I have never seen it in print in this country, I take the liberty of furnishing you with a translation, trusting that it may prove of sufficient value to merit a place in your journal.

I would say, in advance that Mons. Raspail ranks among the very first chemists of Europe. As an agricultural chemist, and as a close and accurate observer, no man is more worthy of attention. He is emphatically the Chemist of Gardeners; embellishing his science by a life of practical usefulness and rendering himself dear to all who know him, by an urbanity which never fails. His article may, perhaps, give us a clue to a method of ridding the Plum tree of its pest, the curculio. I shall certainly make the experiment the coming season, upon my own trees, with a reasonable hope of success.

In the number for September, 1854, Mons. Raspail says:

"Some months since, I published in the journals, and more recently the 'Fermier Vétérinaire,' a method of preserving and freeing plants of their parasites, by means of a simple infusion of aloes. Thus the trunk and branches of an apple tree, covered with the woolly-coated plant louse (*puceron lanigera*) were rid of these vermin by a single washing with a solution of aloes; and the year following, the new brood made their appearance but for a few days, as the washing had not been repeated. Upon Peach trees, the leaves of which were effected by that form of diseased swelling, called by gardeners 'curl,' we have seen these injured leaves giving place in a short time to a new and luxuriant vegetation, simply from the

application to their cracked trunks of a coating of clay, tempered with a solution of aloes. With regard to these trees, the disease did not come from the attacks of the woolly-coated plant louse, as I did not observe a single individual upon them at the time of the diseased limbs. I had heretofore imagined the disease due to the presence and attack of these insects in the cracks of the trunks,

"This year, the storm of May 5th having blighted two of these trees throughout, and another near them, in part, all the leaves being blackened or carbonized, so to speak, in a single day, I applied to their trunks the remedy which had preserved other trees, and enveloped them in a strong coat of clay, tempered with a solution of aloes. The success surpassed my hopes; one of the three was injured in the core, and we had reduced it almost to the bark in order to withdraw the dead portion. But new branches covered with foliage, put forth upon the old ones long before the flow of sap in August, and not a single aphid was found upon the lower surface of the leaves; nor an ant roamed over the branches in search of them; and the ant is very fond of their eggs.

"I believe, that I do not wash the branches; and consequently the leaves, in putting out, could not have coated themselves with the aloes from the effects of rain. Nevertheless, parasitic insects refused to feed upon the leaves, as though they had been coated with gall.

"Is it not, therefore, certain that the trees were imbued with aloes through the sap? Did not the trunk and roots absorb this substance in order to transmit it to the leaves through the circulation? And why not, since roots can convey to the sap arsenic, mercury, and many other metals?

"All this leads me to believe that we will be able to preserve certain vegetable from their parasites, by watering their roots with a solution of aloes. We may thus communicate to them a dose of bitterness sufficient to disgust the insects, although inappreciable to our palates."

In the number for February, 1855, in speaking of the dangers of preparing seed with arsenic to protect it from the attacks of birds and insects, Mons. Raspail says:

"Why, then, use poison alike injurious to man and to parasitic animals, when we have at hand a substance which drives away insects, and cannot possibly injure him who uses it? I speak of aloes.

"Dissolve three ounces of aloes in one hundred and fifty four gallons of water. This quantity of liquid will serve to prepare the seed for eight or ten acres of land, at least, if you do not waste it; and I can assure you, this preparation will protect from the attack of insects, not only the seed, but also the future plant. My experience this year with trees which formerly were devoured every year by insects, leaves me no doubt upon the subject: this preparation with aloes will produce certainly the effect on the crops which a single watering with this substance produces on the growth of fruit trees."

Mons. Raspail has given the result of some experiments made upon the same subject since the above papers were written by him. I have, as yet, not had an opportunity of seeing these papers. When I do, if agreeable to you, I will make them the subject of a future communication.

I am very truly yours, W. M. UHLER, M.D.
Falls of Schuylkill, Phila..

[The only notice we have ever seen of M. Raspail's experiments was, we believe, in the London *Gardener's Chronicle*, about the time of their first publication in France. The subject has since been overlooked, but is well worthy of further experiment. Dr Uhler has our thanks for introducing it, and our readers will share with us the hope that he will again favor us, as promised.—*B. Gardener's Monthly.*]

GESTATION OF ANIMALS.

In answer to the inquiry of "Tamola," December (1858) number, page 370, we give the following complete article from the "*American Farmer's Encyclopedia*:

GESTATION.—The gestatory term in quadrupeds is much regulated by their bulk. In the elephant it is about 20 months, in the camel between 11 and 12, in the mare and ass the same. According to the observations of M. Teissier, of Paris, in 582 mares, which copulated but once, the shortest period was 287 days, and the longest 419, making the extraordinary difference of 132 days, and 89 days beyond the usual term of 11 months. The cow usually brings forth in about nine months, and the sheep in five. Swine usually farrow between the 120th and 140th

day, being liable to variations influenced apparently by their size and their particular breeds. In the bitch, on the contrary, be she as diminutive as a kitten, or as large as the boarhound, pupping occurs on or about the 63d day. The cat produces either on the 55th or 56th day. The true causes which abridge or prolong more or less the period of gestation in the females of quadrupeds, and of the incubation of birds, are yet unknown to us. Many persons are also unacquainted with the proper age for reproduction, the duration of the power of reproduction, and other conditions even of the domesticated animals. It cannot, therefore, but be interesting to find in the following table the results of observations made on this subject by the best ancient and modern naturalists (*Oeconomische neukundige Verhandl.*.)

| Kind of Animals. | Proper age for Reproduction | Period of the Power of Reproduction. | Number of females for one male | The most favorable Season for Copulation. | Period of Gestation and Incubation. | | |
|--------------------------------------|-----------------------------|--------------------------------------|--------------------------------|---|-------------------------------------|--------------|-----------------|
| | | | | | Shortest period. | Mean period. | Longest Period. |
| | | | | | Days. | Days. | Days. |
| Mare..... | 4 years | Years. 10 to 12 | . | May | 322 | 347 | 419 |
| Stallion..... | 5 .. | 12 to 15 | 20 to 30 | | | | |
| Cow..... | 3 .. | 10 | . | July | 210 | 283 | 321 |
| Bull..... | 3 .. | 5 | 30 to 40 | | | | |
| Ewe..... | 2 .. | 6 | . | Nov. | 146 | 154 | 161 |
| Tup..... | 2 .. | 7 | 40 to 50 | | | | |
| Sow..... | 1 .. | 6 | . | March | 109 | 115 | 143 |
| Boar..... | 1 .. | 6 | 6 to 10 | | | | |
| She-Goat..... | 2 .. | 6 | . | Nov. | 150 | 156 | 163 |
| He-Goat..... | 2 .. | 5 | 20 to 40 | | | | |
| She-Ass..... | 4 .. | 10 to 12 | . | May | 365 | 380 | 391 |
| He-Ass..... | 5 .. | 12 to 15 | . | | | | |
| She-Buffalo..... | . | . | . | | 281 | 308 | 335 |
| Bitch..... | 2 .. | 8 to 9 | . | Feb. | 55 | 60 | 63 |
| Dog..... | 2 .. | 8 to 9 | . | | | | |
| She Cat..... | 1 .. | 5 to 6 | . | | 48 | 50 | 56 |
| He Cat..... | 1 .. | 9 to 10 | 5 to 6 | | | | |
| Doe-Rabbit..... | 6 months | 5 to 6 | . | Nov. | 20 | 28 | 35 |
| Buck-Rabbit..... | 6 .. | 5 to 6 | 30 | | | | |
| Cock..... | 6 .. | 5 to 6 | 12 to 15 | | | | |
| Turkey, sitting on the eggs } Hen | . | . | . | | 17 | 24 | 28 |
| } Duck | . | . | . | | 24 | 27 | 30 |
| } Turkey | . | . | . | | 24 | 26 | 30 |
| Hen, sitting on } Duck | . | 3 to 5 | . | | 26 | 30 | 34 |
| } the eggs of the } Hen | . | . | . | | 19 | 21 | 24 |
| Duck..... | . | . | . | | 28 | 30 | 32 |
| Goose..... | . | . | . | | 27 | 30 | 33 |
| Pigeon..... | . | . | . | | 16 | 18 | 20 |

Some of these results do not altogether coincide with the results of observation in England, where, for example, July, the season of copulation of the cow, is considered too late. That period would produce late calves in the following year. November is stated to be the best season for the ewe; for the blackfaced ewe it is, but for the Leicester, and, in many situations, for the Cheviot ewe, it is a month too late. The duration of the power of reproduction accords with our experience as respects the mare and stallion; but 13 years of age for the cow, and 8 for the bull, is too young a period or old age in them, fine animals of both sexes, of a valuable breed, having been kept in a useful state to a much greater age. I have seen a short-horned bull in use at 13 years, and a cow of the same breed bearing calves at 18; but if the ages of 8 and 13 respectively refer to the usual time bulls and cows are kept for use, the statement is not far from the truth.

From some carefully collected and very extensive notes made by Lord Spencer on the periods of gestation of 764 when a cow, it resulted that the shortest period of gestation live calf was produced, was 220 days, and the longest 313

days, but he was not able to rear any calf produced at an earlier period than 242 days. From the result of his experiments it appears that 314 cows calved before the 284th day, and 310 calved after the 285th; so that the probable period of gestation ought to be considered 284 or 285 days. The experiment of M. Teissier on the gestation of cows, are recorded to have given the following results:

21 calved bet'n 240th & 270th day, mean time being 259
544 — — 270th & 299th — 282
10 — — 299th & 321st — 303

In most cases, therefore, between nine and ten months may be assumed as the usual period; though, with a bull-calf, the cow has been generally observed to go about 41 weeks, and a few days less with a female. Any calf produced at an earlier period than 260 days must be considered decidedly premature, and any period of gestation exceeding 300 days must also be considered irregular; but in this latter case, the health of the produce is not affected. I will conclude this article with the remarks of Mr. C. Hilliard, of Northampton, who states that the period

of gestation of a cow is 284 days, or, as it is said, 9 calendar months and 9 days; the ewe 20 weeks; the sow 16 weeks; the mare 11 months. The well-bred cattle of the present time appear to me to bring forth twins more frequently than the cattle did 50 years ago. The males of all animals, hares excepted, are larger than the females. Castrated male cattle become larger beasts than entire males. (*Blaine's Ency.* pp. 205, 281; *Quart. Journ. of Agr.* vol. x., p. 287.)

"STANFORD'S GRASS" AND "HUNGARIAN."

A friend, who knows all about Grasses and many other kindred subjects, writes us:

The "Stanford" does best when sown at the earliest date in the spring, when oats is sown. Best to sow in drills 1 foot apart, very thick in the drill, or it may sown broadcast, 2 bushels to the acre—the land to be well prepared by a harrow and deep plowing. If in drills, 1 bushel seed per acre will do.

It is one of the best grassas we have for winter grazing, and makes a good hay, growing tall and thick. It should be cut just as it is in bloom, if left longer it gets too coarse.

If sown in drills and well top-dressed with manure and a coulter run between the drills every spring, it will, on good land, yield two tons of hay per acre, and afford a splendid pasture throughout the winter; the stock to be removed in March, prior to plowing and manuring.

The Hungarian Grass seed I send is pure, having come from the Patent Office importation. It will be a great acquisition to the owners of rich swamp lands, for a hay crop, for sale, as three to six tons may be raised on an acre and much the most valuable hay. I think a peck would seed an acre.

The lightest frost kills it. It should be sown late in spring; does not do well on thin, dry uplands; is a great exhauster of land.

P.

McCOMB'S COTTON PRESS.

EDITORS SOUTHERN CULTIVATOR—A young friend in South Carolina, begs me to give, through your columns, a description of McCollom's Cotton Press, with the remark "there are several who desire to see a description."

My talent, if any, does not lie in descriptions; yet as this has been urged upon me by two other friends, I cannot refuse.

In the first place, it is to be borne in mind, the bale is pressed upwards, taken out on 1st floor. The press is a frame, firmly connected together with mortice and tenon and supported on two stout girders, or gearing beam on the upper sills of the gin house, the lower story where gin horses work, being the bottom of press, then 1st floor in which the bale is pressed, and above that is a garret for holding seed cotton, where the picked cotton is put in. The four main parts of the press, 20 feet long by about 10 by 14 inches, are connected together side and ends; above is the follow block against which the bale is pressed and moved out to put cotton into box, this is retained in position by the top end ties of the press; box some 8 feet long, then side and end doors, with bottom block 4 feet 6 inches, by 2 feet, running up and down in box. To the bottom of this block is attached sockets of iron, in which work ends of levers, which I can best illustrate by two human arms, the hands attached to centre of bottom block in sockets above; the end at shoulder attached to cross tie at bottom of press; a cast iron grooved wheel attached out side at each elbow, in which a 2 1/2 inch rope freely runs and the wheel plays on an axle; one end of rope is attached to end of axle; is carried to the opposite wheel on same side, over it, then to the wheel on the other elbow where rope started, over it, then through a shaft ex-

tending from centre of press under the bottom block to the earth on a block, gudgeons in both ends working elbow above and below, and working like a capstan on a vessel; the rope is then carried to wheel on the other side of cotton, over it, to the other, and over it, to the other again and made fast to end of axle. A lever is put in bottom of capstan, a horse attached, and, as he goes round the rope winds up on capstan, and as it is so done the elbows are brought together and the lower block forced upward and bale pressed.

I do not know that my friend "C," of Society Hill and the others can understand, but when a model is seen it will be plain. I have pressed, with 5 hands, 20 bales by half-past 2 o'clock P. M., and am certain I can press 30 bales per day to 2 feet square, bales averaging 450 lbs. I have repeatedly pressed 3 bales per hour, with no white man to push up negroes, and have sent off 100 bales in hoops 8.2 inches in length.

But Messrs. Provost, of Selma, Ala., have brought out this year, a press for excelling this in simplicity, in durability, in form, and I believe in expeditiousness. I have now pressed nine crops with McCombs' press, and I think I have some claim to experience with it. I built my own, with my own negroes; it cost me about \$300, but I took more pains than was needful, all my timbers dressed as particularly, as accurate as if I had been making it for exhibition. The Provost can be bought for \$300 I think, and put up with 4 to 6 hands in about a day. I am as anxious to own one, as a boy ever was to own a pony, being fonder of mechanism than any other calling in life. I hold mechanics is a pursuit that a gentleman may follow, but peddling pills! may do for some—not for me.

Hoping others may be as pleased in the reception of this as I have been in the attempt,

I am yours truly,
Edwards' Depot, Miss. Jun., 1859.

M. W. P.

SOUTHERN MADE IMPLEMENTS.

EDITORS SOUTHERN CULTIVATOR—To night I learn there are readers of your (our) paper residing in several States, from Texas east, who are writing to Mr. T. E. C. Brinley, of Kentucky, about his plows.

I beg permission, through you, to inform those of your readers, who are anxious to purchase plows, wagons—agricultural implements generally—that Mr. Brinley is now in this city, and engaged as Superintendent in the Southern Agricultural Implement Factory. The proprietors are M. W & Z A Philips & Rot. Kells—myself, my brother and my son in-law.

I admit to any and all, North and South, that I was actuated in starting this enterprise by a desire to drive out the opponents of the South, from selling agricultural implements here. No need for me to enter into trading matters; yet, as I could not influence friends to go into the business, I influenced my family to do so. We ask nothing from our friends, if we are not worthy. If our implements are not as well made, if not out of as good steel, as good iron, as good wood as are used by our Northern friends! and sold not at as reasonable prices, then let us sink. If we can serve them as well or better, and it is their interest to buy of us, then they can do so. We intend to do our duty, and let others do as they will.

Yours truly,
M. W. PHILIPS.
Jackson, Miss., Jun., 1859.

 In the intercourse of social life, it is in little acts of watchful kindness, recurring daily and hourly, (and opportunities of doing kindness, if sought for, are ever starting up) it is by words, by tones, by gestures, by looks, that affection is won and preserved.

PEABODY CORN---A WORD FOR IT.

EDITORS SOUTHERN CULTIVATOR—Noticing letters in “our paper condemning Peabody and his Corn” I purchased seed intending to muster my forces, to his aid, if possible.

I selected a piece of poor, sandy land, capable of producing, in a good season, 8 bushels Corn to the acre, without manure—laid it off four and a half feet each way, dropping about 1 quart stable and cowpea manure mixed, in each hill, planting the Corn by the side of manure and covering with a hoe.

When about 18 inches high, thinned out to one (sometimes two) stalks in a hill; the season has been rather more than an average; yield per acre, 29 bushels.

The Corn suckered very little, and the hills with two stalks, produced double those with one; some stalks had five and six ears, but generally two or three. There is less cob and shuck to this Corn, than our common varieties.

Although this experiment falls far below my expectations, I do not give up—but shall “try him again”

I purchased the seed from Messrs Isaac G. Williams & Co., Agricultural Warehouse, Galveston; so have no doubt of its purity.

I hear that S. Wallace, Esq., of Wallaceville, has a field of this Corn, which promises all that Mr. Peabody claims for it.

Planters of the South who have fully tested this Corn, let us have your opinion.

A TEXAN

Smith's Point, Texas, 1858.

P. S.—I should mention that being troubled with “Cutworms” and “Black Bugs” “the stand” was very poor—not more than 2 3ds the number of stalks remained; had the “stand” been good, the yield would have been near fifty bushels

CONCRETE BUILDINGS.

We have heretofore given our own experience in building houses of Concrete material, clay mortar, &c., and the mansion and out-houses at “*Fruitland*” will probably long continue standing evidences of the value and durability of this style of building. Wherever rock, gravel, sand and lime are plenty and easily obtained, Concrete houses will be found nearly as cheap as wood, and superior, in many respects, to all others. The *Maine Farmer* of a recent date, has the following article, and as the process described by the *Homestead* differs somewhat from our own, (as set forth in the No of *Southern Cultivator* for August 1857,) we copy entire:

A great majority of the country buildings in New England are constructed of wood. These may be considered, in the beginning, the most economical—and in the end the most expensive; or, in other words, the first cost, in Maine, at least, is cheaper than if built of some more durable material—as of stone or brick; but their durability is so much less, and the repairs required when they begin to decay are so many and often, that they are, after all, most expensive. Within a few years, we have heard of concrete houses, gravel wall houses, and the like. These, when built upon a foundation that is not liable to be thrown up by the frost, and the cement properly made and faithfully applied, are undoubtedly excellent. Their first cost is comparatively light, and their durability great.

There are many places among us, where such buildings might be constructed easier and cheaper than they could be in any other situations. We have heretofore given our readers such directions as we have found, and

which promised to give them insight into the best processes of preparing the cement, and of applying it.

The *Homestead* of last week contains some very good ideas in regard to gravel wall buildings, and the editor informs us that he has recently examined a large and convenient barn, built on this principle, by Mr. C. F. Pond, in Connecticut. He expresses his belief that gravel walls are, for those who want the most economical building material possible, and who would build for a century hence as well as the present, the very best thing.

The mortar he describes as being of mixed lime and hydraulic cement, which sets at once. The size of the sand, or gravel, varies from quite fine up to the size of stones as large as one may handle conveniently with the hands. The larger stones, he says, are not mixed with the mortar, but put in after the mortar is laid.

He then describes the process of building as follows:—

A form is made of boards of the width of the wall and exactly where the wall is wanted. Then the mortar thoroughly mixed, and containing no stones larger than an egg is spread in layers, and cobble stones, with larger angular ones for binders, laid in and bedded in it, so as to, as far as consistent with the strength of the wall, economise mortar. Thus may the wall be made in layers, or blocks, as large as convenience may dictate, say eight or ten feet long by eighteen inches high. The barn in question was built with walls 20 inches thick to the height of about ten feet from the ground, and above that thinner. The upper part is made of blocks of concrete about three feet long by a foot square, as large as two men could conveniently handle—these were made in moulds, while the other part of the wall was in process of making, and as soon as it was hard enough to receive them, they were laid up, thus materially expediting the erection.

The whole barn is in size 50 by 30 feet, with a cellar, about 9 feet in the clear beneath. The whole was erected in 91 days. The walls are as firm and hard as stone, and will continue to grow harder as long as they stand. The outside has been washed with a thin mixture of hydraulic lime and a little Prussian blue, which gives it a uniform greyish tint which is very agreeable.

A frost proof barn cellar is a treasure to a farmer, the worth of which cannot be estimated. The cellar beneath this barn is divided by a tight partition, and a portion setting off about one-third of the whole for a root cellar. Here are piled a noble store of roots secure from injury by the severest weather of our climate, easily got at, and in a convenient, light apartment. The whole cellar, by the way, is well lighted, and has at one side a door wide enough to admit a cart and oxen. The door lifts perpendicularly, and is thus entirely out of the way.

CONCRETE CISTERNS.

Near the barn, and just above it on the slope of the hill, Mr. Pond has a concrete cistern, built in one day, and capable of holding 65 to 70 hogsheads of water.

The process of building was this: A laborer dug the hole in hard gravel in a forenoon. It was dug accurately round and smooth; then a mason plastered the bottom and sides with a thick coat of the concrete made with no large stones, the largest being only coarse gravel. The concrete was made of hydraulic lime so that it set quickly. A quantity was thrown into the pit and smoothed over with a shovel; then, as it set somewhat, a flat form of boards was placed upon it and sides laid. As it was required for immediate use, it was not domed over,—but plank laid over it and covered several feet deep with earth to secure it against frost. The best way is to make a rough dome of thin boards that will easily bend to form the arch of the dome, and then to cover it with a thin layer—three or four inches thick—of concrete. When this is hardened sufficiently, put on another, and thicker, coating, working up the dome regularly and symmetri-

cally four or five inches at least, thicker still. In this last coat the cobble stones may be again added. In finishing the dome, leave a good sized opening in the top and lay upon it and imbedded in the mortar a flagging stone with a man-hole of convenient size; and as soon as the arch has hardened, which will be in only a few days, the supports may be removed with safety.

These, by the way, should be quite numerous, and strong enough to bear the heavy pressure to which they will be subjected without yielding, otherwise the safety of the dome will be impaired. This cistern will stand anything but frost.

CORN CULTIVATION, &c.

EDITORS SOUTHERN CULTIVATOR—I have read everything I could get hold of in regard to the growth and cultivation of our standard provision crop—Indian Corn—and am yet altogether unsatisfied in regard to the practices of our farmers in its cultivation, and with the astonishing ignorance I find to exist amongst the farmers in regard to it. Men may write volumes on *deep plowing*—manuring, &c., and others may “astonish the natives” by “chemical analysis” to the end of the chapter, while one or two practical questions will utterly knock all their theories into nothing. I am a young farmer; never until four years ago, did I know or care when or how to “plant or sow, reap and mow.” I have endeavored to become enlightened on the principles of farming from every quarter possible to obtain such enlightenment. I have sought information from our most successful planters—and my success has been a series of disappointments. One of the most successful planters answered me that he “had no system at all.”—But to *Corn cultivation* Will you or some of your “scientific” or “bungling” readers inform me and no doubt, many others equally as ignorant, which of the roots which supports the growth of the *Corn* plant, supports and matures the ear of *Corn*? Is the ear made by the lateral roots which extend and ramify the earth between the rows or is it made by the “brace” roots from the joints of the stalk above the ground?—Can any of your readers answer these questions practically and from personal knowledge and experiment? If they can, let us have the benefit. It is perfect folly that we should continue on in our blind mode of cultivation, if it be possible that our “eyes could be opened”—upon these questions hangs the whole practical operation of *Corn* making. We grumble at Providence for the want of rain in due season—when we are to blame for our own ignorance. I am an advocate of “deep plowing”—never have seen a field yet plowed “too deep,” but with all the “deep plowing,” I am satisfied we never make as much *Corn* as we could, were it known and thoroughly understood, which roots make the ear of *Corn*! I am also an advocate of “broadcast surface manuring,” because I believe we gain the whole strength of the manure by spreading *upon* and not under the soil!—and no matter to what decision we may arrive in regard to the “lateral or brace roots” of Indian Corn in producing the crop, the broadcast manure would answer either case, but would be much better in the supply of the “lateral than in the “brace” roots—although the benefit would in a measure accrue also to the last named.

JES.

Oglethorpe County, Jan. 1, 1859.

OLD PROVERBS.—Better be the head of the **yeomanry** than the tail of the gentry.

There is many a good wife who cannot dance or sing well.

You will never have a friend if you must have one without a failing.

BREEDING IN-AND-IN.

EDITORS SOUTHERN CULTIVATOR.—I am pleased to see that in your December number, you have an article on this vexed question, taking the side of breeding in-and-in, which you truly say is in opposition to the opinion generally prevailing among practical breeders. Nevertheless, people generally are not so wise that they cannot learn a little more, even upon this subject. People generally adopt their conclusions, on intricate questions, without very patient or critical investigation, and are very often in error.

There doubtless have been many very careful experiments in reference to in-and-in, and cross breeding; but the particulars of such experiments have not been made so public, that people of limited reading, like myself, can find a description of them. The books abound in expressions of *opinion* that the one or the other practice is the better—and general assertions that, after much experience, the writer has found that in-and-in breeding will not do.

But when we enquire of the two opposing parties what they mean by the terms *in-and-in* and *cross*, we find that there is very little disagreement. John Sebright is reported to have said, in reference to in and in breeding:—“I have no doubt that, by this practice being continued, animals would, in course of time, degenerate to such a degree as to become incapable of breeding at all. I have tried many experiments by breeding in and in upon dogs, fowls and pigeons. The dogs became, from strong spaniels, weak and diminutive lap-dogs; the fowls became long in the legs, small in the body, and bad breeders.” Yet, when asked to explain, he said he did not consider breeding from parent and child as in and in, because the child had only half the blood of the parent; but breeding from brother and sister, he observed, “is certainly what may be called a little close;” yet this he thought would not be objectionable, were they both good, and the perfections of the one promised to correct the defects of the other. “Much further than this,” he adds, “the system of breeding from the same family cannot, in my opinion, be pursued with safety.”

This is certainly coming very near to the opposite side of the question, of which Mr. Bakewell is probably the most distinguished representative. I have somewhere seen an expression attributed to him, which puts the whole subject in a nut-shell. On an occasion when several breeders were discussing this question, one of the number, alluding to the well known fact that Mr. Bakewell had produced many poor sheep, notwithstanding his general success, asked him if he believed in breeding in-and-in. The reply was:—“I believe in breeding from the best I can get.” Do not the two antagonisms meet here?

After this long prelude, permit me to give you an item of experience of my own—a mere grain of sand upon the great sea shore.

Eight years ago I resolved to try the experiment of a cross between the Shanghai and the common fowl; knowing it had been often asserted, by breeders of some note, that it was not possible to establish and perpetuate a bird by crossing two distinct varieties—that the Deity had placed a barrier against such a result—and that the decline and final extinction of such a breed was the certain result. It is well known, however, that our best domestic animals have been produced by just such crossing.

But when the experiment is confined to a single person, great obstacles have to be encountered. The evils of close in-and-in breeding, if there are any—the limited field for selection, being confined to his own stock—the want of change and variety in the rearing and entire condition of the animals on trial—and the certain tendency to

unsymmetrical forms; all combine against success. Still all these obstacles do not prove the object impracticable.

I first sought to cross an excellent Rooster of the common fowl on a good Shanghai Hen, in accordance with the theory of Professor Cline, that the females in such cases, should be proportionally larger than the male. Herein, for two years I failed to effect copulation, simply because the Hen was too long in the body for the Rooster. Trials were frequent, and failure so enraged the Rooster that he would have killed the Hen had they not been separated,

I then, six years ago, procured a well made Shanghai Rooster, weighing eight pounds, which I put with my Hens weighing about three and a half pounds, light—that is when a batch of eggs is laid out. These and their progeny I have bred together promiscuously, until this time. The first year the offspring varied greatly, some nearly resembling the male and some the female parents; while others were a good medium between the two, and still others very ugly and resembling neither. The next year there was more uniformity, but none either so well or so ill formed as before. Since then, as a general rule, they have gradually improved; and now they are as fine a stock of fowls, according to my pre-determined model as can be found. They have not diminished in size, but have preserved a medium between the original parents. Owing to careful selection, their legs are now free from feathers—small and clear—their heads small—their combs generally quite small and inclined to the rose formation; though some are yet single and serrate, contrary to the model to which I have designed to bring them. Their tails are a medium between the two.

If there were others trying this same experiment, it might be conducted upon the principles which all practical breeders follow and recommend. We could exchange with each other, and cross our stock with others of the same kind or breed of more remote kin; thus enlarging our field for selection, and avoiding the mischief supposed to result from close in-and in breeding.

Another idea permit me to suggest: cannot the pure Asiatic fowl be converted to our common fowl, by strict breeding together and selecting with reference to that end?

WINDSOR.

Atlanta, Dec 27, 1858.

WINE AND FRUIT IN PORTUGAL.

PORT WINE.—The Portuguese have four modes of cultivating the vine:—1. In the provinces of the Minho, Estremadura and Beira Baixa hanging in festoons from or twining round, poplars or oaks, planted for the especial purpose; 2. In the Alto Douro the vines are planted on terraces, and never allowed to grow higher than three or four feet; 3. In the interior of Trasos-Montes the vines are planted like gooseberry bushes, covering extensive fields in rows about eight feet apart, so as to admit the plough to pass between them; here little care is given either in pruning or rearing the vineyards, so that when there is abundance of fruit the grapes literally lie on the ground and imbibe an earthy taste; 4. Almost everywhere, to a small extent, in villages and near large towns, and in gardens (but particularly in the Minho, near Monces and the river Lima) vines are trellised at a height of eight or twelve feet from the ground. Up to the year 1853 when the Wine Monopoly Company was in existence the export duty on port wine was £6 per pipe for wines exported to England.

Only a particular class of wine was allowed to be sent to the English market, and persons belonging to the company visited the wine districts and told off certain wines as solely for English consumption, for which certificates or "bilhetes," were granted to the farmer. The same system exists, to a certain extent, in the present day, with

this difference, that those who select the wines no longer belong to the Wine Monopoly Company, but are appointed by a body called the "Commercial Association," at Oporto. The export duty on port wine is now reduced to an uniform rate of three milreis per pipe to all countries, but the system of "bilhetes" still exists. These, however, by no means insure that all the wine which arrive at Villa Nova the depot for wines exported, opposite Oporto) is of the growth guaranteed. There is a good deal of fraud and trickery. Mr. Paget thus describes it:—“What takes place is this:—There is a certain district in the Alto Douro which is supposed exclusively to grow the wines of first quality. After the vintage, about the month of November, a commission, appointed by the Commercial Association at Oporto, proceeds to this district for the purpose of ascertaining the quality of wine produced. Having made inquiries on this head, in the month of January, a commission of tasters, composed as above mentioned, again visits the same localities, and on approval of the wines submitted to them, the 'bilhetes' are given to the farmers, which enables them to dispose of their wines, which are then conveyed to Villa Nova. Without this 'bilhete' no wines are admitted to the depot in question. But there is much trickery in obtaining them, for it often happens that a grower will declare that he has 40 or 50 pipes of the wine of which he produces a sample, whereas in reality he may not be possessed of more than three or four pipes.

The deficiency is made up of wine, which he purchases beyond the limits of the prescribed district, or else he sells his 'bilhetes' to a farmer whose geographical position would disentitle him to the privilege of sending his wine to Villa Nova, but who, provided with the 'bilhetes,' is enabled to do so by passing his wine with the 'bilhete' to a merchant at Oporto. The price paid for a 'bilhete' varies between £3 and £4. Under this system, therefore, it is extremely difficult to ascertain the real amount of wine produced in the privileged district.

The amount officially declared for the last season was 15,000 pipes, but I have heard it doubted, on the best authority, whether as much as 6,000 pipes was really produced. It is not to be understood, however, that the wine grown outside the district is necessarily of an inferior quality. Prejudice and ancient custom are also a good deal mixed up in judging this question, and I have been told by competent persons that some of the wine grown beyond the boundaries is quite equal to that produced within them.” “It is a fallacy,” adds Mr. Paget, “to suppose that such a thing as what is termed pure port wine—that is, without an admixture of brandy—exists. On the first arrival of each pipe of wine at Villa Nova, a certain quantity of this spirit is immediately added, for without it the wine would not keep.” The failure in the crop of wines last year (1857) was very calamitous, and, of course, prices rose accordingly.

The produce in the Alto Douro district, ordinarily 100,000 pipes a year, fell off to 15,000. The price of a pipe of port from a farmer is now about £30; before the failure it was less than one moiety of that sum. The same as regards all the wines of the country. The common wines of the country were formerly drunk by the peasant at about one half penny the pint; the same quantity now averages two pence.

The failure in the crop of oranges and lemons has likewise been most disastrous in its consequences. Several remedies, particularly sulphur, have been tried for the cure and prevention of the malady; but the success has been very limited, and should the blight continue for a few years more with the same virulence, the result must be the utter ruin of a vast proportion of the agricultural community. Under these circumstances, it becomes more than ever necessary to give assistance and encouragement to this class of the population. Portugal, as before sug-

gested, instead of endeavoring to become a manufacturing country, should turn all her energies to agriculture. The soil is of the most luxurious and fertile description, and her geographical position is such that she ought to be the most natural granary for all the markets of Europe. The wages of labor are low, and the population are industrious, yet with all these advantages more than half the land is uncultivated, and that which is cultivated is in the rudest and most primitive manner.—*London Times*.

Mr. PAGET, the English diplomatic Agent at Lisbon, also says :

" Portugal should content herself with being an agricultural country, and supplying the markets of the world with grain and wine. * * *

" There are districts in which vile wine is made from good grapes, although much better wines might be produced with less trouble. But of this the manufacturers (or rather makers) cannot be convinced even by "repetition hammered on their ears." There is no wine of any kind, or anywhere obtainable, that may not be grown in Portugal, yet more than half the land is uncultivated, and all modern improvements are carefully eschewed. This sad state of things is chiefly attributable to the want of roads and means of transport throughout the country. Another great bar to progress in Portugal is the absolute reliance of every one on the government for every work of utility and improvement. Whatever the government do not undertake remains undone. * * * Mr. Paget, at the close of his report, observes that every work of improvement and progress finds the most strenuous support in the present intelligent sovereign of the country. As regards port wine (of which more hereafter,) it is a fallacy to suppose that "pure" port wine exists, as it is invariably mixed with brandy at Villa Nova, and, indeed, would not "keep" without.

THE VINTAGE IN THE WEST.

CINCINNATI, Sept. 21st, 1858.

Owing to the very unfavorable weather in May and June, our grape crop in the Ohio Valley was almost destroyed by mildew and rot. The vintage this year will therefore be light, scarcely exceeding one-fifth of an average yield, or about 40 gallons to the acre. Many vine yards have no grapes, some only a third or fourth of a crop, and a few, but very few, in favored positions, tolerably fair crops. This is the case in the Ohio and Mississippi valley, on all the limestone formations. On the sandstone soils, some good crops are found, and also on Kelley's Island, opposite Sandusky City, where the atmosphere is tempered by the water of Lake Erie. The soil is a mixture of clay and sand, underlaid by limestone rock.

In some parts of Tennessee, Georgia, and North and South Carolina, good crops of grapes have been gathered this year, notwithstanding that the early shoots were destroyed by frost on the 27th of April. This applies to the mountainous districts of those States, where the grape is found to flourish best, and where, I believe, they have a more favorable region for the cultivation of the vine than we have in the Ohio valley.

This is the worst year for the grape we have ever had; and yet we are not discouraged. All crops are subject to casualties and are affected by the weather, and why should the grape form an exception? The apple crop in all this region of country is almost an entire failure, from the same cause that destroyed the grapes, viz., mildew produced by the cold and wet weather in May and June.

We have had no good grape crop here since 1853. The yield that year was very great—on some vineyards enormous. Since then, the crops have been light, but none so small as the present one.

Last year the vineyards in Missouri produced larger

crops than they ever die before; this year, no better than ours. In France and Germany, the vineyards suffered severely, for four or five years, from a disease called the "oidium." But, by the applications of sulphur and other remedies, the vines were restored to a healthy condition, and produced good crops last year and this.

Many remedies have been suggested for mildew and rot—but however plausible in theory, they have, thus far, all failed in practice. No system of planting, cultivation, or pruning, can conquer diseases caused by bad weather and atmospheric changes. They may be slightly ameliorated, and this is about all we can hope for.

Some varieties of grapes are less subject to these diseases than others, but none are entirely exempt from them. Even the different varieties of the Fox grape—with their thick skin and hard pulp—suffer more or less every unfavorable season.

But with all these drawbacks, the cultivation of the vine is too widely extended and firmly established in our country, to be abandoned for the discouragements of a few bad seasons, and we must persevere, in hopes of better success in future.

R. BUCHANAN.
[Journal of Commerce.]

EMIGRATION WEST---GEORGians WANTED!

EDITORS SOUTHERN CULTIVATOR—I want the "Cultivator" another year, being the third I have taken it. Every intelligent man, who cultivates an acre of ground South, ought to have it, for the large amount of practical, as well as scientific information it contains, of interest and importance to the Agriculturist. I have found it of great value to me on the little piece of "mother earth" where I have made my suburban home, an amateur tiler of the soil.

In your last number, you discourage emigration from your State. When I have leisure, with your permission, I would like to show that you are wrong in this, and that the great interest you are advancing, the Agricultural dignity and importance of our common South, as also, the well-being of many of your planters and their children, argue against you. The iron rail has made us as one people, has made us neighbors, breaking through State lines and mountain barriers, and obliterating time and space, so that, being thus a common people, our interests are in truth common, whether we settle among you of old Georgia, or you come among us of the new and vigorous West. "The Empire State of the South" can spare much of her wealth and enterprise which, there is necessarily inert, comparatively, but here, in the West, would be highly productive and cumulative, and thereby, equally honorable to big hearted old Georgia. Though we had the pleasure, some time ago, of seeing some of your people among us, yet most others in those old States have no just conception of the magnitude and capacity of this country, agriculturally, or of the rapidity and permanency of its growth. And, in fact, Messrs Editors, from all we saw and felt of your people, also, in your own State, we are rather more than anxious that Georgians should come among us. But I must stop.

J. T. G.
Respectfully,
Memphis, Tennessee, 1858.

"Think'st thou there is no tyranny but that
Of blood and chains! The despotism of vice—
The weakness and wickedness of luxury—
The negligence—the apathy—the evils
Of sensual sloth—produce ten thousand tyrants,
Whose delegated cruelty surpass
The worst acts of one energetic master,
However harsh and hard in his own bearing."

[BYRON.]

For the Southern Cultivator.
THE FARMER-MAN---A GEORGIA-C.

INSCRIBED TO "N," OF VIRGINIA.

Between her Rivers and beside the Sea !
My mother-land ! What fairer land than she ?
 Tho' vandal hands have from her bosom torn
 The richest robe the virgin earth hath worn,
 Uncrowned her hills, despoiled each forest dale,
 And left her cheek to blush without a veil;
 Yet wist we well a gentle race shall rise,
 Sons of her soil ! and daughters of her skies !
 Restore each trace of primal beauty flown,
 And lend, perhaps, a lovelier of their own.
 Of such my song—most happy might it be
As meet in *all*, oh, Friend ! as that it sings to thee.

FYTTE I.

The Farmer-man ! I see him sit
 In his low porch, to muse a bit.
 The while I throw him in a—Fytte.

 What time the Jasmynes scent the air,
 And drop their blossoms in his hair ;

 What time the evening echo tells
 Of trampling herds and tinkling bells ;

 And all the echoes of the Ark,
 Salute the planter-patriarch !

 So, sitting with his collar spread,
 And heels y'levelled with his head ;

 A monarch in his mere content,
 A king, by general consent.

FYTTE II.

And framed between his heels he sees
 A picture, which, perchance may please,
 The distant City, and more nigh
 The River's twinkle, like an eye.

 Obscured at intervals by motes,
 Which quite extract its beam with beats.

 The purple hills, where swift or slow,
 The cloudland shadows come and go ;

 While dun as dormice at their home
 The little rail-cars follow them

 With all the clamor that portends
 The most prodigious dividends !

 The cottages with curling smoke,
 Significant of "colored folk,"

 The world's "Ewe"-nanimous pet lamb,
 Begotten of the black sheep, Ham.

The first, without a foe or care,
 To breathe Millenium's morning air.

 And in their midst a lonely mound
 Most eloquent, without a sound,

Tells how the pasted years have sped
 With the black savage and the red.

The yellow corn-fields, and the brown,
 Where Southern snow hath melted down;

And borne its all abundant lint
 To drown the mills and drain the mint.

The woods, whose autumn glories cheer
 The solemn sunset of the year,

With oval openings, which en-ring
 Such views as we are picturing.

And hint how much the traveller sees,
 Who stays at home and studies trees,

And thanks the telescope, tho' dim,
 That keeps its *smallest eye* on him ;

And nearer home all shape and sheen
 Of Nature's endless evergreen ;

Through which a winding walk doth glide
 To Orchards, jubilant and wide.

Restrained within an emerald edge,
 Of fair, tho' somewhat thorny hedge.

An arch-way entrance, and o'erhead
 This little legend to be read :

"Partake of *all* the fruit, nor grieve
 For Eden's morn or Eden's Eve!"

FYTTE III.

But, what of him ? the Farmer man,
 His way of life and being's plan ?

Why simply (be it so with many)
 That "now's" as good a time as *any* ;

Yet he can tell you of a morn,
 Ere yonder valley sang with corn ;

Or yonder hill top bared its brow,
 Submissive to the sun and plow.

And long before yon proud, white spires
 Crushed out the low, red council fires.

With not a "turn-out" toe, to press
 The dim walks of the wilderness !

Of many a season, come and flown,
 With stroke of fortune, and his own ;

Till waves of varied memory
 Shall leave him stranded as we see ;

With Time's old foam-marks in the lines,
 Now starry with the Jessamines !

FYTTE IV.

His politics I might rehearse
 In limits lesser than my verse ;

Should any fool my State invade,
 Then mention me as strict "State-aid !"

Till then I mind my own affairs,
And trust my friends to manage theirs!

His Science? such as thou may'st hit
By plowing deep in search of it!

His wit? the shortest link that girds
An English thought to English words.

His credit? shall the world forget
The Atlas that upheld her debt?

His creed? in reverence of the Past,
Old faith and feeling, holds he fast.

So that my muse's stenograph
Anticipates his epitaph—

"He read the Bible, loved his wife,
And hated humbug, all his life!"

And, happily, to round my "pome,"
"Loved God, his Neighbor, and his Home."

T.

Torch Hill, Ga., —mas, '58.

GIN GEARING LEVER. &c.

EDITORS SOUTHERN CULTIVATOR—I send you a drawing of a Gin Gear Lever and the manner it can be applied to any ordinary Gin Shaft. I am of the opinion that by this method of constructing the Lever one fifth more power or purchase on the Gin Gear is gained over the straight Lever. I have taken out the old straight Lever when the Gin pulled hard, and put in this kind of Lever I found in every instance that the team did the same work with more ease by about one fifth if not more. Several persons for whom this alteration was made can testify to the same, and as this plan of Gin Lever is original with myself, I give it to you, and your readers if you think proper, to publish it. Most of the Gin houses in middle Georgia are about thirty feet square. I calculate the horses will walk around this circle three times in one minute; now the cog wheel, band wheel, and trunnel must be proportioned to bring up the Gin 250 revolutions in the same length of time and the Gin to be 50 Saws; now to do all this it requires good pulling for two horses with the straight Lever on the old plan. the reason is, as you see in the drawing; dotted line F, as the horses pull around a circle, they spend a good deal of power against the centre of the Shaft figure 1; now the idea is among many farmers that I have met with in Georgia, that a crooked lever has no advantage over the straight lever, they have found out that something was wrong with the straight Lever, and hence they substitute the crooked lever H. By this method, they throw the horse in a better line with the circle, yet the tension against the Shaft is nearly the same. Now to get the best purchase on the Shaft is to throw the long Lever outside of the Shaft as seen in figure 3, and let it rest on the short piece figure 2, which passes through the centre of Shaft, and framed with mortice and tenon in piece figure 4. The drawing shows for itself how to be framed; the dotted lines a a show that figures 3 and 4 are let into the Shaft about one and a half inches to hold up and support the Lever; thus you see the alteration is very simple and costs but a trifle; and those who wish to ease their teams a little, and do the same amount of work, can but try the cant-hook principle. Respectfully,

JAMES B. KNOX.

Sparta, Ga., Jan. 1859.

[The improvement above indicated, strikes us favorably,

but we are unable at present to give the drawings referred to. All who desire to avail themselves of the advantages set forth, may address JNO. KNOX, as above, and he will furnish drafts and models of his improved Lever, &c.—Eds.]

THE COTTON GIN---ITS ORIGIN, &c.

EDITORS SOUTHERN CULTIVATOR—I noticed last year a controversy about the origin of the Saw Gin. Some writer or writers in the *Cultivator* were disputing who made the first Gin, some say one and some say another, the truth of the thing is just this, Whitney invented the thing and Edward Lyon and his brother Henry made the first Saw Gin that was ever made. Whitney made a small hand Gin with a wooden Cylindar, with wire drawn in and bent forward for teeth; this, Mr. Lyon saw and improved his opportunity, aided by a young Scotchman, made the Saw Gin. Lyon having through disguise in woman's clothes seen Whitney's Gin, in the year 1794 in Elbert county on Broad river he made the Saw Gin. Andrew McEver made the wheels to set it going at Mr. Fulton Jones' Mills on Falling Creek in said county, the Rolling Gin spoken of was washed away at the time of the ever memorable Yazoo freshet that inundated Augusta and drove out the Legislature then sitting in Augusta. I saw Mr Lyon at work on the Gin in '94 as above stated; I know not that it is of any avail who made it, so that we have it—Whitney and Lyon went to law about it, but neither got a patent for the discovery. I could tell much about the transaction, but am a poor writer, as you can see without being told of it.

JOHN EVANS.

HOW TO MAKE HOME HAPPY.

Do not jest with your wife upon a subject in which there is danger of wounding her feelings. Remember that she treasures every word you utter, though you never think of it again. Do not speak of some virtue in another man's wife, to remind your own of a fault. Do not reproach your wife with personal defects, for if she has sensibility, you inflict a wound difficult to heal. Do not treat your wife with inattention in company. Do not upbraid her in the presence of a third person, nor entertain her with praising the beauty and accomplishments of other women. If you would have a pleasant home and cheerful wife, pass your evenings under your own roof. Do not be stern and silent in your own house, and remarkable for sociability elsewhere. Remember that your wife has as much need of recreation as yourself, and devote a portion, at least, of your leisure hours to such society and amusements as she may join. By so doing, you will secure her smiles and increase her affection. Do not, by being too exact in pecuniary matters, make your wife feel her dependence on your bounty. If she is a sensible woman, she should be acquainted with your business and know your income, that she may regulate her household expenses accordingly. Do not withhold this knowledge, in order to cover your own extravagance. Women have a keen perception—be sure she will discover your selfishness,—and though no word is spoken, from that moment her respect is lessened, and her confidence diminished, pride wounded, and a thousand, perhaps unjust, suspicions created. From that moment is your domestic comfort on the wane. There can be no quietness where there is no full confidence.—*Woman's Thoughts about Women.*

☞ Refrain from bitter words, there is only the difference of a letter between words and swords.

CHINESE SUGAR CANE SYRUP.

Messrs. Editors:—Having been at the State Fair, and there exhibited some Syrup made from the Chinese Sugar Cane, and being there requested to give my process of manufacture by some members, I said that I would do so through the Wisconsin *Farmer* at my earliest convenience, although many others have had much, while I have had but little experience in the manufacture of Syrup from Cane. The fact that others have had more experience than I, will not deter me from giving my mite for the benefit of those who may be aided thereby. I will here state that before this year I knew nothing of raising Sugar Cane, or of its manufacture into Sugar or Syrup, excepting that I saw some last year while growing, and the little that I read upon the process of its manufacture. This year I have raised some of the *Sorgho Sucré*, and experimented a little in Syrup making.

I will here state that the planting and cultivation of the Cane was about the same as though it had been Indian corn; the ground was ridged four feet apart, and planted so as to be about four feet each way. It was planted from the fifteenth to the twentieth of May, cultivated and hoed twice. From the calculation that I have made upon its yield of Syrup per acre, and I have had no other means of knowing than by calculating and comparing the number of hills it required for one gallon, with the number of hills upon an acre—the cane used for the gallon being about an average of the acre. In this way I calculate that one acre of good cane will yield about 200 gallons of good syrup; this I think is safe calculation. If our seasons hereafter prove as favorable to the growth of the Sugar Cane as this has, the State of Wisconsin need not be wanting in the production of her own sweets.

The process of the manufacture of the Syrup exhibited by me at the State Fair was as follows: The Cane was cut, (such as was ripe or nearly so,) the leaves stripped off, the top also taken off, and passed through a mill, having three cast iron rollers, an upright shaft and sweep power, the rollers standing in a horizontal position in the machine. This machine we had made by Winchester & DeWolf, White-water. In expressing juice it will do a business of from 30 to 40 gallons per hour.

After straining the juice, which was done through a linen cloth, I take a gill of the milk of lime and the white of two eggs to each five gallons of the juice. After beating the eggs well, I mix with the milk of lime, and put the mixture into the strained juice. I then place the boiler over the fire, or the fire under the boiler, as the case may require, and bring the contents to a boil, when a thick green scum will have arisen, which I immediately take off, taking care not to let it boil in, after which I let it boil until one-half its quantity has been evaporated, then strain through a thick flannel strainer while hot, and then place over the fire and boil down to the consistency of Syrup, taking off the scum as it arises, throughout the process of evaporation. I find that it takes about seven gallons of the juice to make one of good Syrup.—*Wisconsin Farmer.*

IMPROVEMENT IN THE BAROMETER.—A very marked improvement has recently been made in the mercurial barometer, which can scarcely fail to bring it into more general use than it has enjoyed hitherto. The new invention renders it portable—so that it may be carried about in any position without in the least impairing its reliability. It is also made so much cheaper than heretofore, that it will be brought within the reach of farmers and all others who have constant occasion to consult indications of the weather in advance. If this improvement works as well as it promises, it will be one of very great practical importance.

TEXAS COTTON LANDS.

THE San Antonio *Ledger* takes up the cudgels for Texas, as follows:

We observe an article in the N. Y. *Journal of Commerce* of the 18th ult., upon "Cotton Lands," which we are of opinion does Texas great injustice.

In speaking of the Cotton lands of the South, it does not refer to Texas in any manner. Now Texas possesses a scope of country, running from the 27th parallel to the 35th, and extending from the Sabine to the Rio Grande, which for Cotton, is unsurpassed in a world. And in Texas the producer is not liable to be troubled, as the article in question seems to infer planters from off the Mississippi, Red and Arkansas Rivers, are, by the soil becoming exhausted. In Texas our soil extends various depths, from two to twenty feet, and no soil of such depth can be exhausted by cultivation. Good judges have estimated that Texas alone is capable of producing 10,000,000 bales of cotton annually. We think therefore, that the planter will not require to go to Africa, India or South America, to produce; let him come to Texas, when he finds his soil exhausted, and our word for it, he will not be disappointed. The Southern States can always supply the demand, if our planters will only awaken to the importance of properly cultivating their home lands.

CORN STALKS---CUTTING, CURING, AND Feeding.

My plan is to cut twenty-four hills to the shock. I use a stay post with two arms, made from a light piece of wood, two and a half inches square, four feet long, with a pointed socket on the end. I bore two inch holes crosswise through it, near the top, put a couple of good rods two and a half feet long through the standard, making four arms. Set the post in the ground, cut the corn, and set an equal number of hills in each square. Bind the tops, withdraw the arms, reach in the hand, turn the post a little, and lift it out from the shock. By this operation I have no hills of green corn to hinder the curing process; no hills to cut off when husking and drawing in. Stocks set up in this manner stand firmer than any other way I ever tried. I usually cut up corn the last of September and first of October, husking as soon as dry enough, in the field, putting four shocks into one, until finished. I draw in on a damp day, and instead of packing or laying down in the mow, I stand them up as closely packed as possible, butts down, and never have a mouldy corn stalk. I cut them for feeding, cutting a whole day at a time, sprinkling them occasionally with weak brine. When feeding milch cows, I put on a little bran, or mix a few turnips or carrots. I have no waste, no long stalks in my manure and my stock do full as well as on hay, especially my cows. They give milk of better quality than when run out on late frosted feed, or fed on dry hay. Some say cut stalks make their cattle's mouths sore. I never feed cut stalks in hard frozen weather, but only when it is warm and moderate; and never had cattle troubled with sore mouth. I also feed them moist, and change to hay when cold, or cattle seem tired of them. I never confine cattle to one kind of feed more than five or six days at one time, if possible to change.

DAYTON SIGLER,

[in *Genesee Farmer*.]

SENSIBLE NEGRO!—"Cæsar," said a planter to his negro, "climb up that tree and thin the branches." The negro showing no disposition to comply, and being pressed for a reason, answered: "Well, look heah, Massa, if I go up dar and fall down and broke my neck, dat'll be a thousand dollars out of your pocket. Now why don't you hire an Irishman to go up, and den if he falls and kill himself, dar won't be no loss to nobody."

BLACK TONGUE IN CATTLE.

As the danger of a recurrence of this very troublesome and fatal disease is not yet over, we append the following from the *American Veterinary Journal*—most excellent authority:

"The cause of this malignant disease does not seem to have been yet ascertained, though by many it is attributed to the rust, which, in various parts of the Southern States, as elsewhere, has affected the grain crops, and it is said in some places the grass also. The cattle are attacked by a stiffness, and walk as though foundered; white froth is discharged in large quantities from the mouth—they can eat nothing, fall away rapidly, and the tongue and gums become dreadfully swollen and turn black, and death speedily releases them from their agony."

"The rapid progress which usually attends this dreadful epizootic, calls for prompt and energetic treatment. It is evidently a congestive disease, and very apt to run into typhoid stage and end in sudden death. The moment an animal is suspected to be the subject of this malady, he should be drenched with table salt, twelve ounces; warm water, one quart; to which add tincture of capsicum, two ounces. This medicine will act as a powerful antiseptic and stimulating tonic, thus preserving the animal tissues against putrescence, and at the same time it relieves the venous congestion. If, on applying the hand to any part of the body, a crackling sound is elicited, the animal is then said to be emphysematous; which signifies an accumulation of gas beneath the skin; the patient should then be immediately drenched with two ounces of pyrolygneous acid, twenty-eight drops of pure oil of sassafras, linseed tea, one quart. Mix the oil with the latter, then add the acid. After having drenched the animal, apply a portion of the following to the tumefactions, or emphysematous region:

Take of Soft Soap four ounces.

Oil of Sassafras half an ounce.

Dissolve the sassafras in two ounces of alcohol.

Tincture of Capsicum two ounces.

Tincture of Peruvian bark one pint.

Mix, and rub the external surface with a portion of the same.

The swollen tongue should be frequently covered with fine salt, and the moment there appears any improvement, tonic medicine should be given. One ounce of fluid extract of camomile flowers may be given, twice daily. This remedy will give tone to the system and restore the appetite."

SOUTHERN WOOL!—HORSES, &c.—Mr. Mark R. Cockrill, a celebrated farmer and wool-grower of Tennessee, believing that a soft climate will produce a more soft and perfect wool than the far-famed German province, Silesia, proposes to select five sheep from his flock—three ewes and two bucks—and show for \$2,000 a side, against any five sheep selected from one flock, ewes and bucks as above. All the world are requested to compete, making as many entries as they may think proper. The premium to be awarded to the party who has three sheep out of the five that have the most soft and fine fibre of wool. Entries to be made with the Secretary of the Tennessee State Agricultural Bureau on or before the 20th day of April next, but the exhibition to take place on the Nashville track, on the second Monday in May, 1860.

Mr. Cockrill also proposes to compete with two blood horses, for \$2,000, against all the trotting stock in the world, the animal travelling the greatest distance in two hours to take the prize. Camels and dromedaries are requested to compete in this trial.

FOUNDER AND SWEENEY.

EDITORS SOUTHERN CULTIVATOR—I have seen several remedies recommended in the *Cultivator* for Founder in Horses, but nothing to equal the following, which has not failed in one case since I have commenced using it, which is some ten years since. I send it for you to do with it as you please:

Bleed the horse in the neck freely; pulverise a piece of alum the size of a hen egg and dissolve it in a bottle of warm water and give as a drench, and if necessary you may use the horse immediately, and he will gradually improve, so that in a short time you will not know that the horse was foundered.

The Sweeney can be cured by bathing the shoulder once a day for three days in the Oil of Spike, say 1 1/2 tablespoonful at a time, driven in by holding a warm oven-lid near.

Yours respectfully, G. F. T.

Chullahoma, Miss., 1858.

“RICE CORN”—SORGHO SYRUP, BRANDY, &c.

EDITORS SOUTHERN CULTIVATOR—Enclosed, I send you a few seed of what is here called “Rice Corn.” If you should recognize it as an old acquaintance, please inform me whether it be good for forage. In case it should prove a stranger to you, I will give you what little information I possess in regard to it. Some time ago, I saw some growing in a garden near this place, and never having seen any before, went in to examine it. The stalk, blades and head at a distance resemble the Chinese Sugar Cane. There is very little juice, however, in the stalk, and judging from the taste, very little saccharine matter in the juice. It was sown very thick in the drill, and the stalks averaged about ten feet in height. It is very prolific of seed, yielding, I should think, twice as much as Chinese Sugar Cane on land of the same fertility. When a stalk is cut or broken, young sprouts grow off luxuriantly, which, with the fact that it grows well when sown thick, renders it probable that it is valuable for littering stock.

I had hoped to see something in the last *Cultivator* in regard to your experience with the Hungarian Grass, but was disappointed. Do let us know whether it will produce seven or eight tons, or half that amount of good forage per acre, on good land in the South.

To day our County Fair closed. The exhibition was fine in every particular, excepting Machinery and Farming utensils. We are behind the times in regard to plows, and I reckon I will have to get up a club of subscribers to the *Cultivator*, in order to induce our people to adopt the Horse hoe and other improvements.

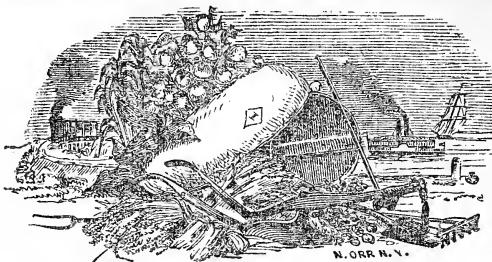
A barrel of Chinese Sugar Cane syrup was on exhibition equally as good as sugar-house molasses. I have heretofore considered the syrup and sugar of the cane a humbug; but the former is certainly no humbug. The exhibitor stated that he made eight barrels at a cost of 15 cents per gal. I think he sold that barrel at 40 or 45c. per gal. He also exhibited some very strong brandy made from the syrup.

I am glad that you have arrived at the conclusion that your paper is worthy a covering—an opinion which I entertained and expressed some time ago.

THEETI.

Fayetteville, N. C., 1858.

[The seeds sent are of that variety of Millet known as “Chicken Corn,” or “Chocolate Corn”—by no means as valuable as Sorgho for forage. We have not given the Hungarian Grass a fair trial. See the opinion of an experienced friend, elsewhere in present number, and let us hear from you again.—Eds.]



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., NO. 2::::: FEBRUARY, 1859.

ANSWERS TO CORRESPONDENTS.

LIME—HOW TO APPLY, &c.—L. S.—See Vol. 15 (1857), page 21. Also, Vol. 16, (1858) pages 139, 353, &c. Lime should not be mixed with guano or stable manure—it is most valuable on soils containing an excess of vegetable matter.

SALT AS A MANURE—C. M. R.—You will find articles on this subject in our last volume (1858) at pages 97, 307, 342. Also, in vol. 15, (1857) at page 338. We cannot re-publish these articles, in justice to our present subscribers, unless there is a general demand for them.

COTTON SEED CRUSHED—J. C. M.—We should prefer the crushed seed as manure. Use as soon as possible after crushing.

GRASS SEED—J. R. R.—See advertisements in our columns, and address PLUMB & LEITNER, V. LATASSE, or other dealers.

TOBACCO—We do not know of such a Treatise as one of our correspondents calls for; but there is a practical chapter on Tobacco raising in BEATTY'S "Southern Agriculture," page 15. The book is a copy right, or we would re-publish. It costs \$1 only, and may be ordered from A. O. MOORE & CO., 140 Fulton street, New York City.

COB AND GRIST MILLS—J. R. B.—The "Little Giant" and "Young America" are Cob Mills. The "Felton" Mill is a Grist and Cob Mill. For information respecting the "Little Giant," address CARMICHAEL & BEAN, Augusta, Ga. H & J. MOORE & CO., of this city are the Agents for the "Young America," or "Excelsior" Mill, and will give you all necessary information. DANIEL CHAFFEE, of this city, will reply to all inquiries respecting Felton's Mill—its cost, capacity, &c. We must again repeat that, in no case can we undertake to decide upon the relative value of these mills—our own experience with them being too limited.

TOBACCO, POPPIES, GRASS FOR HAY, &c—W. S. W. Jr.—See remarks above, on Tobacco. The Poppy, so far as we know, has not been cultivated to any extent for commercial purposes, in this country—nor do we think there is any profit in it—labor is too high. Why cultivate such poisonous and depraving drugs as Tobacco and Opium, when your lands will produce Cotton Grass, Grass and Fruit? See pages 41, 73, 158, 318, 342, 323 of last volume (1858) for valuable information on Grasses. See, also, present number, article headed "Stanford's Wild Grass and Hungarian." We think the latter would suit your low lands and latitude. The seed may be obtained here. If you can procure plenty of oyster shell or

other lime, and will plow deep and prepare your land very thoroughly, you may try the Clover—also Lucerne. Sow early in Spring. If you want to master this subject fully, send \$1.25 to A. O. MOORE & CO., 140 Fulton street, New York City, and order a very valuable new work, entitled "Grasses and Forage Plants," by FLINT.

SIDE HILL PLOWS.—F. B. F.—JOHN and THOS. A. BONES, or CARMICHAEL & BEAN, of this city can, probably supply you.

GLOBE ARTICHOKE—J. P. S.—See WHITE'S "Gardening for the South," pages 215-219.

BROYLE'S SUBSOIL PLOW—J. W. S.—We have not the cut and description you allude to, and do not remember ever to have published it.

GRAFTING SCIONS—D. A. McL.—Address any of the nurserymen whose advertisements you will find on the cover.

CLUB RATES OF SOUTHERN CULTIVATOR.—J. W. M.—We will furnish our paper to Agricultural Societies ordering several copies for premiums, at 75c per copy; but we cannot afford them at the rate you mention. The regular price, \$1, affords us little enough profit, in all conscience.

SORGOH AND IMPHEE.—A. F. C.—Yes; all the varieties of Sorgho and Imphee will mix, and you must plant them widely apart, if you wish to keep the varieties pure and distinct.

LIME AND GUANO.—J. W. McC.—Do not mix lime with your guano. Use leaf mould or surface scrapings from the woods—5 or 6 parts to 1 part of guano, and after carefully mixing, sprinkle the pile with a strong brine (salt and water,) let it stand 24 hours, and use.

OSAGE ORANGE SEED.—J. O. L.—Address V. LATASSE, or F. A. MAUGE, Augusta, Ga.

CHUFAS.—J. S. R.—Address Mr. CHAS. A. PEABODY, Columbus, Ga.

FELTON'S MILL.—W. T. S.—Address D. CHAFFEE, Augusta, Ga.

BEST ONE HORSE TURNING PLOW.—W. D. T.—It is particularly hard for us to decide this question. We have tried a great number within the past few years. We like Rich's Iron Beam and Utley's. The latter took the premium as the best one horse plow at the late Atlanta Fair. We have recently made some important improvements in the Utley Plow, and hope to get it right after a while. We are much indebted to Mr. G. W. Cooper, of Ogeechee, Ga., for his assistance in this matter. Mr. C. has done much, himself, for the improvements of Southern Plows, as many of our readers know.

CHEESE—COLORING MATTER, &c.—W. W. H.—An olive is the substance used to give cheese its "beautiful rich red appearance." A little of it is not particularly injurious, but manufacturers of "skim milk" cheese are apt to put in too much, in their desire to counterfeit cream.

LAWN GRASSES FOR THE SOUTH.—W. D. H.—Plow very deep—subsoil, harrow, sow your seed, and roll in with a heavy roller. Use a mixture of red clover, white clover and blue grass—from 1 to 2 bushels to the acre. The proper manures are Phosphate of Lime, Ashes, &c., plowed in before sowing; and liquid manure (Guano dissolved in water, 4 quarts to a barrel,) afterwards, at intervals, just before a rain. It costs labor and some little money to have a fresh, green lawn under our burning sun—but it can be done! If the above directions are followed.

SAMPLES OF WOOL.—Mr. JAMES SLOCUM, of Pittsburgh, Pa., sends us some very long and fine samples of Wool, from his Merino Sheep. See his advertisement, on cover.

PERIODICALS, PAMPHLETS, &c., received at this office since our last issue:

THE LOTUS, for January, 1859. Vol. 1, No. 1. Edited by ANNIE CHAMBERS KETCHUM, and published by HUTTON & CLARK, Memphis, Tenn., monthly, at \$3 per annum. A new Southern Literary magazine, of much promise. Address the publishers.

THE CINCINNATUS—an excellent monthly, devoted to Scientific Agriculture, Horticulture, &c., &c. Edited by F. G. CAREY. Published by W. G. ONGLEY, College Hill, Ohio. \$2 per annum.

ANNUAL CATALOGUE of Southern and Acclimated Fruit Trees, Evergreens, Roses, Grape Vines, Rare Trees, Shrubs, &c., &c., cultivated and for sale at Pomaria Nursery. By WILLIAM SUMMER, of Pomaria, S. C. An excellent Catalogue, containing many articles of great value.

RUSSELL'S MAGAZINE, for January—a capital number—published monthly, at \$3 per annum, Address "Russell's Magazine," Charleston, S. C.

ADDRESS ON HORTICULTURE, &c. By Rt. Rev. STEPHEN ELLIOTT, Jr., of Savannah, Ga. We are indebted to the respected author for a copy of this admirable Address, from which we will make extracts hereafter.

THE HORTICULTURIST, for January, is fully equal in interest and value to any of its predecessors. It is embellished with a "Group of Van Mons Pears," (by Dr. BERCKMANS) and other engravings of merit. Every gardener and fruit grower should take *The Horticulturist*. Terms—\$2 per annum. C. M. SAXTON, 25 Park Row, New York City.

LADIES' HOME MAGAZINE, for January. This is really what it purports to be—an excellent Magazine for home and the fireside—and cannot fail to be a welcome visitor in all families of taste and refinement. Terms—\$2 per year. T. S. ARTHUR, publisher, Philadelphia, Pa.

AN ADDRESS, delivered at the Dedication of the Agricultural College of the State of Michigan, by Jos. R. WILLIAMS, President of the Institution. The Address of President WILLIAMS contains many valuable ideas on Agricultural Education, and we are glad to perceive that the subject is receiving so much attention in some of our sister States. When will the South establish such Agricultural schools and Colleges for the education of her sons?

"**THE SOUTH COUNTRYMAN**," is the title of a new monthly Agricultural, Industrial and Educational journal of 32 pages, published at Marietta, Ga., by W. H. HUNT, at \$1 per annum. The *Countryman* is under the editorial charge of Rev. C. W. HOWARD, and cannot fail to be an able and efficient co-worker in the cause of Agricultural reform and improvement. We give it the "right hand of fellowship," and wish it abundant success.

PATENT OFFICE REPORTS for 1857—Agricultural and Mechanical—just received as we go to press, and will be noticed in our next.

Hon. J. H. HAMMOND, of South Carolina, will accept our thanks for various public documents of interest and value.

FORCE PUMPS AND COTTON CULTIVATORS.

We are indebted to Messrs. PAYNE & OLcotts, of Corning, New York, for one of WYNCOOP's superior "Force, Suction and Self Packing Pumps" for which the Patentee claims the following advantages:

"1st. It is durable and not liable to get out of order.

"2d. It is constructed so as to be self packing, the packing being made of rubber and of a peculiar shape, so that it cannot fail to pack at every stroke.

"3d. The piston rods work through stuffing boxes that are packed with rubber, and so arranged as to form a spring to facilitate the packing of the piston as the connection strikes the stuffing box springing the concussion causes the vessel as all shut instantly, they are also as is ed by the pressure of water, the pressure being in both cylinders equal.

"4th. Simple city; the whole thing is held together with four bolts, by removing which four nuts your whole pump will come to pieces for repair or examination, which any person can do with a common wrench, which if the original trial pump has worked, will not happen in two years in ordinary use."

This pump is furnished with all the couplings, suction pipes, hose, &c. necessary to form a perfect Fire Engine, and may be made an extremely useful appendage to any dwelling; for if properly fitted up in a convenient position, it would form a perfect security against the ravages of fire. It may, also, we think, be very profitably used for irrigating, either when stationary, as a force pump, or attached to a large water cart, as a garden engine. Water is the life of vegetation, in our sultry climate, and any practicable and cheap method of applying it to our crops is most desirable. Such a pump as the one under notice can be turned to a variety of economical uses on a farm or plantation; and is simple, desirable and cheap. It can be furnished, we believe, of all sizes—to go by hand, horse power or steam.

Messrs. P. & O. have also sent us an improved Corn and Cotton Cultivator, that we think very well of. It is in the shape of a double mould-board plow, followed by a set of drag teeth or small harrows, that pulverize and level the earth loosened up by the plow. These drag teeth may also be replaced by small mould-boards or cultivator teeth, that will throw the earth up to the row, and the implement is in all respects, one of the most ingenious and efficient that we have seen.

See advertisement of Messrs. PAYNE & OLcotts, on cover.

GARDEN SEEDS.—Mr. V. LATASSE has kindly sent us some choice Garden Seeds, of which he has a fine supply. See advertisement.

CHINESE SUGAR CANE—A meeting of the Chinese Sugar Cane growers of Winnebago county (Ill.) was held at Rockford on the 8th of December, when a large number of samples of sugar and syrup was offered, comprising a variety of grades, some of which were reported as very fine. Two hundred gallons of molasses to the acre of cane was mentioned as a fair crop. The cane has been extensively cultivated in Illinois the past season, and from facts at hand, says the Rockford *Republican*, it is shown that "syrup and sugar are destined to become as staple articles of production of this State as wheat."

CONDENSED CORRESPONDENCE.

PEARS AT THE NORTH.—A Southern friend, who is thoroughly versed in the science and practice of Fruit Culture, writes us from Philadelphia, under date of Nov. 5th, 1858:

"I forgot to mention the fact of my being offered for Pears, per barrel, \$30, by several of the fruit men in this city. Now, I should think it would pay well to raise the Winter Pears—a profitable investment, so long as they can be sold at such prices. They will be higher in a few years than they are now."

LIME FOR MANURE.—A gentleman, in all respects familiar with the subject, writing from Cass county, Ga., says :

"With a patent kiln, lime can be burned here at 3 cents a bushel, rating labor at \$20 per month. The freight to Augusta is now 11 cents per bushel. If the State or the parties purchasing provided their cars, the freight could be reduced to 9 cents, which would make the cost of lime 12 cents per bushel, delivered in Augusta. As an item of Agricultural interest, this is well worthy of notice in the *Cultivator*. You may rely on the figures being correct."

GRAPE CULTURE.—"I take this opportunity to return my thanks for the Report on the Culture of the Vine, Wine Making, &c., by Mr. Caradeuc. It is the very thing I have long sought after. J. E. P."

AGRICULTURAL BOOKS FORTHCOMING.—A New York city correspondent writes :

"Our enterprising friend, A. O. Moore, the great Agricultural Book Publisher, has now in press several new books or new editions of old books, among which I may mention :—'Downing's Landscape Gardening,' which will contain 5 new steel plates in the best style, besides new wood engravings, portraits of places and trees of interest, mostly drawn by Mr. Moore, himself; 'Darlington's Agricultural Botany,' or 'Weeds and Useful Plants,' also well illustrated; 'Longstroth's Hive and Honey Bee,' a much improved edition with new matter; 'Elliott's Western Fruit Book,' which, I think, you will find much improved. Besides Mr. Moore is getting out 'Herbert's Hints to Horsekeepers,' with additional chapters on Carriages, Harness, etc., making it a more complete manual for the horsekeeper than has heretofore appeared."

[All our readers should possess these valuable books. The cost is trifling, and the information which they contain, invaluable.—Eds.]

GEORGIA CATAWBA WINE.—A gentleman of Middle Georgia, who has paid much attention to the Grape, writes :

"I have, for the first time, made some Still Catawba Wine this fall. By next fall, if it turn out as well as I expect, I shall compare notes with Mr. Axt, and shall send you a sample to test it. If, however, your taste is not in constant practice, you may call the aid of some one on whose judgment you can rely. I don't pretend to be a professed wine maker or manufacturer, and do not aspire to anything more than an amateur; but I can assure you that the wine I make is considered very pleasant, and is devoid of all intoxicating qualities. My wine took the prize at our late County Fair. I think well of your suggestion to use the plow for the grape culture; it is well adapted to all sandy, grey, and mulatto soils, but the red stiff clay needs the spade. It is well, however, to encourage the culture of the grape in any way."

GRAFTING INTO SUCKERS—"I have purchased a lot of trees from a small nursery establishment in the interior of Georgia, being attracted by the low price of \$8 per

100, at which they were offered. I find that they have been raised from cuttings or from layers. Will they make as healthy trees as it grafted in good roots? I send you a sample of the trees."

A CONSTANT READER.

[THE trees sent are miserable and worthless—not worth the freight—will be a *Dailey* "eye sore" to the planter—should have been grafted on good seedling roots, as is the practice of all reliable and intelligent nurserymen.—Eds.

THE GRAPE CULTURE IN CALIFORNIA.—By the last accounts from California, it is stated, that one plantation of forty acres of ground containing 40,000 vines, yielded this season 37,000 gallons of white wine, 3,000 gallons of red wine, 5,000 angelica and 3,000 gallons brandy, in all, 48,000 gallons—which gives 1,200 gallons per acre. This is the product of one vineyard in the district of Los Angeles, (not los *Angelos* as it is sometimes written) Los Angeles means the Angels, a very appropriate name for a good productive climate and soil; 5 gallons wine make one gallon brandy, one gallon angelica gives 15 pints wine.

[How is it possible for one gallon (4 quarts) of angelica, to give 15 pints (7 1-2 quarts!) of wine? Will our friend "P.", be good enough to explain, and also tell our readers what "angelica" is?—Eds.]

CRAB GRASS—**EDITORS SOUTHERN CULTIVATOR**—There is a diversity of opinion in this region of country as to whether or not Crab Grass is a good fertilizer. Some of our farmers contend that a good coat of crab grass ploughed under in the spring and summer adds much to the production of the soil, and that if allowed to mature the hay ploughed under in the spring is of much benefit to the production that years. I contend that weeds when very luxuriant if ploughed under will be a benefit. I wish to know from some of your scientific practical farmers (some of your numerous subscribers) whether the crab grass is a benefit or an injury to land, and whether or not it possesses all the fertilizing chemical ingredients that are necessary on sandy lands. An answer through your valuable paper will benefit some of your subscribers very much in this region. Yours truly,

WATTENAS.

Des Arc, Arkansas, 1858.

PRIZE ANIMALS.—We have received a list of Prizes won by Col. J. W. WARE, near Berryville, Clark co., Va., at the Virginia Valley Agricultural Society's Fair, U. S. Fair at Richmond, Va., Fair of the Maryland State Society, &c., &c., and should judge that the Horses and Sheep of this gentleman are of very superior quality.

THE CULTIVATOR "TOO LATE FOR "T" (SA).—Our gifted "Torch Hill" correspondent—the renowned and immortal author of "The Farmer Man," (published elsewhere in present number) sends us the following complaint of the tardiness of our January number:

What impedes his wheels? and what
Detains his coming chariot?
What, I say, can be the matter
With the *Southern Cultivator*?
Broke his clevis? beat his steel?
Sprung his beam? or split his heel?
Here are orchards that implore him!
Here are gardens waiting for him!
Seeds to plant! and plants to "tend to"!
"Worlds of work" that there's no end to!
Say, what can the matter be
That he doesn't come to "T"?

◆◆◆
The intellect of the wise is said to be like glass; it admits the light of heaven and reflects it.

TAR AS A DISINFECTANT.—The editor of the *Medina Gazette* tells of a skunk being captured in a house by a dog, with the usual result of disgust to the victors. The terrible scent was neutralized by burning tar upon live coals of fire by which the air was purified as if by magic. If this kind of fumigation is a sure specific, it deserves to be known and put upon record.

GRAPE CULTURE IN THE SOUTH---NO. 2.

[Continued from December number of *Southern Cultivator*.]

PREPARATION OF THE LAND, CONTINUED.—Since the publication of No. 1, the writer has received numerous letters on the subject of Grape Culture, from all parts of the Southern States, and as the inquiries of his correspondents seem to be mainly directed to the *cheapest* and *best* method of preparing the soil for a vineyard, he will give his own experience and practice, and go a little more into detail. In the first place, then, it is absolutely necessary to have good tools in order to do work properly and economically; and as *spade trenching* is too laborious and expensive, we are necessarily obliged to adopt the *plow*. For all heavy work, heretofore, we have used the "Deep Sod Tiller" and "Rich's Iron Beam" or "Washington" plow, but these and all others are now cast aside and entirely superseded by Utley's Combined Subsoil and Turning Plow. With the assistance of one of our ingenious mechanics (Mr. G. W. COOPER, of Ogeechee, Ga.) we have made such alterations and improvements in this Plow, as adapt it especially to the preparation of land for vineyards and orchards, and we can confidently recommend it (in its *improved* form) as the very best Plow we have ever seen for deep tillage. With our present "means and appliances" for the preparation of land, then, we can very confidently lower the estimate of cost given in our previous number; and, as *spade trenching* cannot be adopted by the mass of Grape culturists, we give the following as the *latest, cheapest, and best* mode of inaugurating the culture of the Vine in the South:

Select a moderately sloping hill-side, with any exposure from east to south west—an old field is preferable, because more easily brought into cultivation—burn off all grass, weeds, broomstraw, &c., and carefully grub out all briars, roots and stumps that might offer the least obstruction to the plow. With one of Utley's large plows, (properly set for subsoiling and turning) a pair of strong mules, and a good plowman between the handles, you are ready to commence. In the first place, plow your land *perpendicularly*, up and down the hill, taking a very narrow furrow slice (say 8 inches) and running as *deep* as possible. When you have plowed the land in this manner, *close* and *deep*, "turn your hand" and cross-plow the whole, *horizontally*, or *across* the hill, running again very narrow furrows, and as *deep* as possible. (Keep plenty of new plow points at hand, and change as often as the old ones become dull.) After you have thus plowed and cross-plowed, harrow carefully and closely, running around or across the hill. If the work has been properly performed, you will now find the whole of the land

thoroughly stirred and broken to the depth of from 12 to 15 inches, and you may then proceed to lay off your rows. A Level, such as is used in hill-side ditching, will be of service to you in this matter, but is not necessary. We have always been guided by the eye alone. Begin at the top of the hill, and lay off row after row at the proper distances, circling in crescent shape around the hill, as in the following diagram:

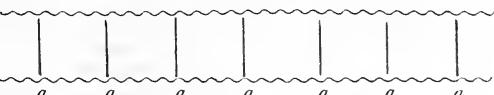
HILL SIDE.



These rows may be indicated by long stakes (which are more conspicuous if freshly peeled,) and can be *marked off* by a steady hand, with a single mule and a shovel or turning plow. After they are marked off plainly, take the Utley Plow, as before, and run deeply either twice or four times in every row, backwards and forwards throwing out the earth both ways, and forming a trench 18 to 20 inches deep.

PLANTING.—Set short stakes or sticks along the edge of this trench, at the distances you intend planting, and let your hands pass along with their shovels, filling in a mound or dam of surface earth, a foot thick and level with the edges of the trench, at every stick. These mounds or banks of earth, that are formed in the trench, may be left moderately sloping in the direction of the trench, so that when the roots or cuttings are dropped in against them, they will lie at an angle of about 45 degrees. Let us endeavor to explain, by another diagram:

TRENCH.



The cross marks, *a*, *a*, &c., are intended to represent the little mounds of surface soil that are filled in across the trench for the roots or cuttings to rest against. When the trenches are prepared in this manner, one hand places the roots or cuttings, leaning against these little mounds, at the proper depth, and another follows and covers them with the shovel, using surface soil from the edges of the trench. In planting *cuttings*, leave the top bud or eye just even with the surface, or is slightly covered with light soil, it will break through, and perhaps be less liable to injury from late spring frosts. In planting *roots*, the strongest shoot of the previous year must be retained and cut back to 2 or 3 good eyes, the lowest of these to be about one inch above the surface. When planting, it is not absolutely necessary to close or fill in the entire trench at once. Each root or cutting may be surrounded with a foot or two of earth, at first and the intermediate spaces, in the trench left open for a few days. If deemed advisable, a slight compost of leaf mould, ashes and broken bones may be scattered in these spaces between the plants for the future nourishment of the root, and the

trench afterwards closed by the shovel or the turning-plow.

In order to secure a good stand, it has been our custom to plant twice as many cuttings as we intend to leave. For instance, if we intend our vines ultimately to stand 10 feet apart in the row, we plant cuttings every 5 feet in the row, and if all grow, take up every second one at the end of the first season, leaving the others at the proper distance. This is better than planting two or three cuttings in a hole together and removing all but one, as, by our method, there is no danger of injuring the vine left behind.

AFTER CULTURE.—During the first summer, the entire ground must be kept clean, open and mellow, by the constant passage of light cultivators or horse-hoes between the rows, and if the soil is very clayey or retentive, it may be well to make a wide 'open furrow mid-way between each row, to hold surplus water, and keep it from settling around the grape roots. This will rarely be necessary, however, if the ground has been plowed and pulverized as we have directed; for, such a large body of loose and porous soil possesses immense capacities for the absorption and proper distribution of moisture. If your hill side is steep and inclined to "wash" or "gully," it may be well to bed up two or three furrows of earth on the lower side of each grape row, thus forming a sort of shelf or terrace for each, which, with the centre furrow before described, will enable every row to hold whatever water falls upon it, and prevent that "washing" and "gullying" which is the consequence of a rush of accumulated water.

MULCHING, &c.—After the first spring working of the Vineyard with the horse-hoe or cultivator, it will be found an excellent practice to mulch or cover the ground along the grape rows, two feet in width and four or five inches deep, with partially decomposed leaves, chopped pine straw, or some similar material, sprinkling a little earth over it to keep it in place. This mulching will prevent the growth of weeds, restrain too rapid evaporation, &c., and, by its gradual decay, yield considerable sustenance to the vine. It will, also, we think, have a tendency to prevent the sometimes blighting effects of the refraction of the sun's rays from a hard and baked surface; and if the canes are trained low and horizontally, will be useful in keeping the clusters of fruit clean and unsullied.

We deem it scarcely necessary to offer any further remarks on pruning, making of wine, &c., at present; as the very able and practical treatise of Mr DE CARADEUC* is very full and explicit upon all these points, and may be safely followed. As new facts and experiments, connected with Grape Culture in the South, are developed, we shall take great pleasure in giving them to the public; and being desirous, in our humble way, of doing all in our power to further the progress of this great enterprise, we shall be greatly obliged for information from practical men everywhere.

In the preceding remarks, we have indicated our own preference for locality, implements, &c., but do not wish it to be understood that more level land may not answer

the purpose well, or that the work may not be performed with different plows from those which we use. We deem it advisable to point out the easiest and most practicable system, in order that land owners may be induced to give the Grape a fair trial; feeling confident that the success which will follow this simple and inexpensive plan of planting the Vine, will justify and induce a more thorough and elaborate preparation of other Vineyards hereafter. We, of the South, are in this, as in many other things, singularly oblivious of the great advantages of soil and climate which we possess; but we trust that the new spirit which is beginning to prevail, and the many well-directed experiments now in progress, will remove all doubt and fully demonstrate the unrivaled capacities of our favored section.

D. R.

"Vireland," Augusta, Ga., Jan., 1859.

[*NOTE.—A second edition of MR. DE CARADEUC's pamphlet on Grape Culture, with an Appendix, is now ready. See advertisement.]

Horticultural Department.

WILD SCUPPERNONG GRAPES, &c.

EDITORS SOUTHERN CULTIVATOR—I have been trying for a term of years to promote the cultivation of Fruit and Ornamental Trees—and have given all my leisure to this object and Horticultural improvement. Living in a low, flat country we suffer exceedingly from late frosts—my experiments all inculcate the idea that Northern Fruit will not succeed in this latitude: a few years ago I got some Ohio men to graft my Apple trees. They were very expert in the business—cut up my trees—filled them full of best grafts from Ohio—half of the trees were so much mutilated that they died, and the rest which live and bear fruit never bring an Apple to perfection. By the time they are grown they rot and fall off, or dry up on the boughs. They did not lack either in experience in charging. This experiment satisfied me; as the old saying is "a burned child dreads the fire," in future I expect my supplies from the South. The Tennessee trees do pretty well here, those from North Alabama also. I have a lot obtained from the vicinity of Yazoo City, which came highly recommended, but are as yet to be tested. I have the nucleus of a vineyard; all my varieties have failed the last two years except the Scuppernong, which this year in particular, has exceeded all expectations. I have found this variety growing luxuriantly in the low land of Lipsey river; There appears to be two parent vines, which from size and appearance must be quite antiquated; from these seedlings some white some black are scattered all around in the vicinity—these originals must have existed here from a remote period—to which time the "memory of man runneth not back;" how they came here no one can divine—perhaps the seed was deposited by the woodpecker in his annual migration South and brought from the Roanoke; we know by experience that they are very fond of the fruit and may have scattered the seed in their telegraphic flights in quest of isothermal comfort. It is true that our country is settled up with North Carolinians, but none so old as these vines, and strange to say, none of them are impressed with the ideas of the *utile et dulce*. Therefore, the advent of these strangers could not be attributed to them Yours, very respectfully,

J. E. P.

Vienna, Alabama.

GRAPE IN TEXAS.

EDITORS SOUTHERN CULTIVATOR—As you are doubtless aware, this city is directly upon the bank of the Rio Grand, opposite the city of Matamoras, Mexico, and 25 miles from the mouth of the Rio Grande and the Gulf of Mexico.

I have made some experiments with Grapes, and have succeeded well. I believe the soil and climate of this valley are as well adapted to the culture of the vine as any portion of France. Frenchmen pronounce my vines equal to any they ever saw in France, and equally productive. We are free from mildew and insects. I have now an abundance of ripe ones.

I am ignorant of the proper mode of cultivation, excepting what I have accidentally picked up within the last few years. Your obedient servant,

I. B. B.
Brownsville, Texas, 1858.

MUSTANG WINE IN TEXAS.

OUR old friend and correspondent, THOMAS AFFLECK, the well known horticulturist, writes as follows, in the *Houston Telegraph*:

"Our Eutaw friend requests me to 'detail the *modus operandi* of wine-making from the Mustang Grape; the manner of obtaining the juice; the amount of water used, if any,' and so on.

"Although tolerably conversant with the manner of making wine, as practiced in the different countries of Europe, and about Cincinnati, &c., I find that there is much to learn from practice and experience, with a grape like the Mustang, newly employed for the purpose, or, at least, of which we have no written experience. For my part, I have been mainly a looker on, this year; a pupil of M. Gerard. Until this experience in a small way, in 1856, I had strong doubts whether a wine made from the juice of the Mustang would keep in this climate without the addition of spirit or of sugar which becomes spirit. The wine made that year, and that, too, with very ordinary means, such as tubs, &c., was excellent, and kept perfectly; being now sound and good; vastly improved indeed by age. Nothing was used but the juice of the grape, pressed by trampling.

"This year the Grapes were gathered by plucking off the bunches with the finger and thumb. Every second evening, the grapes thus gathered, during the two days, were run through one of W. O. Hickok's Cider Mills, (made at Harrisburg, Pa., and an excellent machine it is for the purpose) juice, skins, pulp and seeds all running directly into a fermenting tub. Fermentation commences immediately; the mass rising to a considerable height, care being taken not to break the crust or mass of skins, &c. To say what 'the proper temperature should be' or 'the length of time required for fermenting,' &c., is impossible for me as yet. My cellar is 30 by 15, and ten foot deep, with stout roof of cedar, covered with earth, and kept as cool as possible. The time required for fermenting varies from 60 to 80 hours; and can only be determined by the nose! The tub may be tapped with a gimblet, and a little wine drawn off. When it runs clear and smells well, like wine, is the best direction, it may be drawn off and barreled. Fill the barrel and lay on the bung reversed, so as not to be tight. After from two to three weeks, the wine may be drawn off clear, and still further clarified with the white of egg. Then, when fully settled, say in two or four weeks, it may be bottled off, or racked off again into casks to remain until wanted.

"When the wine has been drawn from the tub, until it begins to appear muddy, stop it; then add three or four buckets of water to each barrel of grapes in the tub, and allow another fermentation, when the result will be *liqueur* or *petit vin*—the most excellent drink imaginable

during warm weather; and may be drank as soon as made. It will not keep long.

"These directions might be greatly extended. But the fact is that those who desire to do more than make a few barrels for their own use, had better employ some one in the first instance who understands fully the process.

"I intended planting in vineyard—the Mustang Grape—every foot of land under tillage this coming fall.

"Mustang wine requires age, and repeated racking off and other manipulations, to bring it to anything like the degree of perfection it is capable of being brought to. It is an excellent wine, but in its natural state contains a very large proportion of tartaric acid, which, however, it precipitates in the cask with time. Drs Key, Graves, Red, and other practicing physicians here, prescribe it, whenever to be had, as the best of all tonics to patients in a state of convalescence; and especially after low fevers."

GRAPE GROWING IN LOUISIANA.

EDITORS SOUTHERN CULTIVATOR—I believe I am the first who attempted the culture of the vine in the State of Louisiana. If you know any one who commenced before I would like to know it. If there is no person engaged in that culture on a large scale before me, please take notice and mention in your valuable journal that I am the first who began the culture of the vine in the State of Louisiana.

I am at this moment clearing 15 acres more; then next spring I will have about 25 acres, and I intend to continue year after year, until I will have 50 acres.

Being a novel culture here, I am daily exposed to the ridicule and blame of my neighbors.

Prognosticating that I am going to lose eight or ten thousand dollars in the experiment; notwithstanding, I go to work with a strong and confident heart. I want encouragement; and I find it every month in reading your valuable journal. Like you, I am for progress, and I think if I succeed, it will be great acquisition for the upper State of Louisiana; we have so many hills—land selling at one dollar an acre, and finding no one to buy at that low price—but, if success crowns me, these lands will soon increase in value.

Yours, &c., P. BREDA, M. D.
Natchitoches, La., 1858

JAPANESE HORTICULTURE.

UNITED STATES CONSULAR GENERAL,
AT SIMODA, Japan.

SIR:—A letter from your Department, dated July 14, 1856, and addressed to this Consulate, was not received until the 20th of October, 1857. I have not had an opportunity of communicating with any part of the world since the receipt of that letter, and it is quite uncertain when I shall be able to dispatch the present letter.

The statements in the "World in Miniature," concerning the Japan Radish, are much exaggerated. It is true that radishes are grown in every part of Japan, but nowhere are they a principal article of food; they are merely an adjunct to the rice, wheat and barley, which are the great staples of the country.

I ordered the best specimens of the long radish to be brought to me when I first visited Yedo; the longest were less than thirty inches in length, and about one inch in diameter; this radish, when dried, loses more than three-fourths of its bulk, and looks very like a whiplash. With the long radish specimens of another kind were brought to me. These were shaped like our parsnips. The largest measured eighteen inches long, fifteen inches in circumference, and weighed four lbs. five oz. avoirdupois.

All of the radishes of Japan, when used as a salad, are

inferior to the garden radish of the West, being tough, and not of an agreeable flavor. When boiled, they are quite insipid, having nothing of the flavor of the white turnip or ruta baga.

I shall embrace the first opportunity of sending you seeds of both the foregoing varieties, but have great doubts about these reaching you in good condition, as I cannot get the metal cases in which to seal them hermetically, nor can Wardian cases be procured here, as there is not a pane of glass in the whole empire.

Very little attention is paid to the cultivation of fruit in this country; the cherry and plum tree produces magnificent blossoms, but they bear very little fruit, and that little is worthless. Peaches are far inferior to those of China, being quite bitter, and the same remark will apply to the apricot.

I have seen only one variety of pears; they are in all shapes and colors, and are quite like a russet apple, but they are unfit to eat raw, and when cooked are quite insipid. The best grapes of Japan resemble the Catawba in appearance, but are inferior to that variety.

The only fruit I have seen in Japan that particularly merits notice is the kali, a variety of Diospyros, and belonging to the order of Ebenacæ; it is really worthy of being introduced into the United States. Quite a number of sorts have been brought to me; one has a skin as thin as tissue paper, and the pulp resembles the Egyptian fig in flavor. Another variety has a thick rind, and a finer pulp than the sort first mentioned, while the taste strongly reminds me of the flavor of the delicious mango of Siam and Bombay. The tree is very ornamental, and of rapid growth. It would, no doubt, succeed in any part of the United States south of 37° of latitude. Unlike the persimmon of the United States, there is very little astringency in the skin of the fruit, and frost, which matures the persimmon, greatly injures the kali. This fruit varies in size, but is always larger than its American relative, and some are seven inches in diameter. The fruit is in season nearly three months. When dried, it resembles the dried Smyrna fig in taste.

I send you a few seeds of the kali, under this covering, thinking that they may possibly germinate, after they reach Washington, and knowing that they will only cause a trifling addition to the postage of my letter.

I am, very respectfully, your o't servant,

TOWNSEND HARRIS,

Consular General.

To the Commissioner of the Patent Office, Washington.

PROFITS OF AN ORCHARD.

It is reported that one of our farmers in the neighborhood of Nashville, has this fall, after making a large amount of cider and vinegar from his orchard, sold the balance of his apples to a New Yorker for \$900, and the New Yorker claims that he will realize six thousand dollars by the operation.

We suppose there is little doubt of his being able to do it. The orchard consists of some 5,000 trees that have just come into bearing. The enterprising proprietor has twelve thousand trees already set out, and will soon have an orchard that will yield him an immense revenue.

One hundred acres of orchard will contain some six thousand trees, and they will yield enough the sixth year after planting to pay all expenses, of trees, planting and cultivation. When in full bearing, they will furnish some three barrels of apples to the tree every other year. If the orchard is on any of our railroads the apples will net two dollars a barrel, or six dollars to the tree, which will be equal to three dollars to the tree every year. Thus we see the handsome annual income from 100 acres, or an orchard of 6,000 trees, of eighteen thousand dollars. If those statements are exaggerated by one-half, it will be

seen at a glance, that nothing promises half so well. But there are a thousand facts that prove this estimate below instead of above, the reality.

Tennessee has a position among her sister States, that enables her to supply them with many valuable things, but the day will come, when her fruit and vintage will be one of her most pleasant and profitable sources of income, and the market cannot be overstocked.—*Home-stead.*

DOMESTIC WINES.

THE rapid progress which vine culture is making in this country is one of the best guarantees against the serious evils of intemperance, and this progress cannot fail, ere long, to give cheap wines. American champagne is gradually obtaining the reputation of being the purest effervescent wine in the world, and if, as Mr. Longworth says, we have five thousand varieties of native grapes—all of them free from the oidium, or grape disease, which is spreading over every corner of Europe—it will be seen that the West has in reserve an enormous field of productiveness to fall back on, as population grows dense, and profitable investment for capital is required.

There is an absurd idea prevalent that wine cannot be profitably raised in this country; that labor is too dear, and European opposition too great. On the contrary, wine raising is at this instant the most profitable branch of agriculture in America. It will pay from one to three hundred dollars an acre, yielding a higher profit on capital, skill and labor invested, than any other planting.

The wines which can be most easily raised are, like those of Germany, light and very innocuous. We often hear it said that there is no drunkenness in France but drunkenness is even rare among the wine drinking Germans of the Rhine. Liebig, the great chemist, declares that these people, far from being injured by their wine, owe to it the health for which they are so famous, there being no place in the world where there is so little demand for apothecaries' wares. But the reader will recollect that those wines are very different from those of other nations, being no more intoxicating to those familiar with them than common claret. When attention is more generally devoted to wine culture, we shall probably see wine as cheap here as cider, and strychnine whiskey and fighting brandy at a discount. Excessive use of ardent spirits is a great cause of national suffering; anything which will do away with it, or modify it, can hardly fail to be regarded as a blessing.—*Petersburg Express.*

CURIOS MODE OF GRAFTING THE PEAR.

THE French, it is well known, says the *Country Gentleman*, are very expert in grafting and budding, including tomatoes on potatoes, cucumbers and other singular plants—sometimes for profit; at others, apparently more to show to what extent the art can be applied. Another singular practice has just come to light, through the medium of a correspondent to the English *Gardener's Chronicle*, which is the working of flower buds of the pear, taken from bearing trees, on to barren ones. The extract reads:—

"The finest Pears exhibited (Paris Hort. Exhibition) were produced from flower buds, which had been inserted on barren spurs of other trees during the previous autumn. The method of budding is called by the French, 'Greffes de boutons a fruit,' which to me was a novelty in horticultural manipulation. The whole spurs were cut from the trees, to show the buds inserted, which latter had produced no wood shoots, but only the fine fruit in

clusters of threes and fours. The best specimens were those of Doyenne d'Hiver, Duchesse d'Angouleme, Beurre Clairgeau, Belle de Berry, and Belle Angevine."

"Another method of grafting, exhibited at the same time, reads as follows:—

"Connected with the fruit department, was a series of fruit trees in pots and tubs, for the purpose of exhibiting the different methods of grafting, budding, pruning, training, &c., which afforded much interest, and were closely inspected by both practicals and amateurs. To me some of the manipulations appeared ingenious as well as effective. One curious mode of grafting is interesting in a physiological point of view. It consisted of the leaf on an orange tree, which had produced roots from the foot-stalk, after which the parenchyma was cut from each side of the mid-rib near the centre, when a scion was grafted on the latter, which was bushing into a regular and vigorous plant. I understood the person to say that these scions were covered with mold, into which they soon rooted, when they had both the advantage of their own roots, and those of the stock on which they were grafted."

GROW AND EAT VEGETABLES.—One of the strongest arguments in favor of the culture of vegetables and fruit and their consumption in the family, is the fact that such consumption prevents disease. We are by no means strictly vegetarian in theory or practice, but we know by experience, that fruit even at large prices, is cheaper and far more profitable to purchase than the services of a physician, and that if the former are not consumed as an article of every day diet, the services of the latter will be required. We have seen it asserted recently by a medical writer, that the introduction of the tomato upon the table has reduced the severity of certain types of summer diseases to a noticeable extent; and yet in a book, not a dozen years of age, we saw it asserted that this same tomato is "a most unhealthful and innutritious fruit." As soon as we learn how luxuriously we can live with no increase of cost, and a great increase of health, by the consumption of the products of our garden, more and better gardens will be found on every homestead.—*Emery's Journal*.

THE VINTAGE AND FRUITS OF ITALY.

A correspondent of the *Providence Journal* writes as follows:

We are apt to associate none but poetical ideas with a vintage and wine-making in Italy, but what intensely patriotic American who has seen both, will have the courage to say that these are all more poetical than a New England harvest of Indian Corn, pippins, or pumpkin? It is distance, the atmospheric medium of three or four thousand miles through which we gaze, which greatly aids the charm. In spite of all the poetry of grape-gathering and grape-eating, even in Italy, we find that the second good-sized bunch will set the teeth on edge. In our untraveled innocence, we imagine that the clusters which we see in our hot houses and horticultural exhibitions but imperfectly typify the ponderous development and luxuriant abundance of this fruit in grape-growing countries. I have not yet seen, either in the markets or grape yards of Southern Europe anything that would compare with the fruit displayed at our annual shows.

Not only in the large grape yield, but in other kinds of fruit, this will be a bountiful year in Tuscany. Figs, pears, and peaches are in uncommon abundance; indeed, the last named are about as plenty, good, and cheap as with us during a favorable season in New Jersey. Of fresh figs, fifteen to twenty can be bought for a *crazia*, a little more than our cent. The olive yield does not pro-

mise so well as usual, which may oblige the Florentines after this to pay a little more for the oil they burn in their lamps and eat on their salads

FRUIT BENEFICIAL TO HEALTH.

A noted author, speaking of the utility of fruits for food and the preservation of health, says:

"The fruits of various climes should be regarded as one of the most valuable gifts which Divine Providence has bestowed upon man; and the cultivation of them should, on all accounts, be promoted; not merely as a source of luxury, but as a substitute for pernicious medicine, and as a delicious healthy, and most nutritious article of food." Another celebrated physician says that "thoroughly ripe fruit, eaten with bread, is the most innocent of aliments, and will even insure health and strength." Volumes of similar extracts might be adduced, but the following will suffice: "One of the best aliments, and the best adapted to the different ages of life, is that which fruits afford. They present to a man a light nourishment, of easy digestion, and produce chyle admirably adapted to the functions of the human body."

The writer of this has himself experienced, as he believes, much benefit from the use of good fruit, and of the opinion that for the preservation of health it is of more benefit than any quantity of drugs a person may choose to consume. Calling at one time, upon a physician for medicine to remove costiveness, he knew none equal to good, ripe apples. The prescription met with a cordial reception, and has been many times tried with good success.—*Maine Farmer*.

BLACK TONGUE IN CATTLE.

EDITORS SOUTHERN CULTIVATOR—In the September number of your valuable journal there is a recipe for the cure of the Murrain, Black Tongue, &c.

Will you or some of your correspondents communicate, through the medium of your paper, what are the first symptoms, and in what way does the Black Tongue affect cattle? Is it contagious? Is it produced from anything they eat? Are cattle that are pastured in fields, and those that range the woods, all subject to it? Is the Murrain and Black Tongue one and the same thing?

There is a disease among the cattle in this region of country, and we do not know what it is. When first taken, they are stiff in their limbs, and walk lame; they seem to have a good appetite, and will lick salt freely. I have not seen one that has died from the disease, but understand a good many are dying through the country.

Yours with respect,
Brookhaven, Miss., 1858.

W.

[See article from *Veterinary Journal* in present number.—Eds.]

LONGEVITY OF MULES.—Says the *Lancaster (Pa.) Examiner*, we have numerous reports of mules attaining the age of forty, fifty or sixty years of age, and Col. Middleton of South Carolina stated some years ago that he had one at work on his plantation eighty years old; and we have seen an account of a mule in Ireland, certified to have been at work since 1707, making over one hundred and fifty years old. This is of course, a very uncommon age, but we are satisfied that with proper usage, mules would commonly attain to about forty years, being serviceable to the last, and this should be counted as one of the elements of their value.

A FACT FOR FARMERS—If you invest money in tools, and then leave them exposed to the weather, it is the same as loaning money to a spendthrift without security—a dead loss in both cases.

RICE, MACHINERY, &c.

AMONG the curiosities of the North End known to but few of our citizens, is a mammoth "rice-hulling" establishment lately owned by Mr Parsons. The expensive machinery and the great number of experiments to be tried to make it a first class establishment, and the incidentals required in getting up a new establishment consumed a great amount of capital. We understand it is in good hands and doing a profitable business, rendering it one of the most valuable establishments.

We, New England people, outside of commerce know but little of the preparation rice must undergo to make it an article of food and commerce. First, then, the rice is enclosed in a thick shell-like substance composed of silica, which will wear out almost anything to grind it. In its natural state it becomes an article of commerce for transporting throughout the world. The shell in which it is encased is impervious to water; any amount of wetting will not prevent its keeping under water and mud, or enclosed in the Egyptian mummies it has still come out bright.

There have yet been no machines introduced except the old way which has been practiced for four hundred years, viz: the mill stone and the pestle and mortar. We have engravings of the Chinese as far back as that time, the same as used at the present day.

Through the genius and persevering industry of Mr. Williams, the overseer, and Mr. Dyer Green, the foreman of this establishment, this system has been brought to as great perfection as possible; and we have been compelled to admire—amid the apparent complicated mass—the beautiful simplicity with which everything works at this establishment, turning out daily six hundred bushels of clean-polished rice. We have our objections to this system. First, that a great amount of broken rice is produced, and, second, a great amount is polished off far more than is necessary. The flour and broken rice is sold at a low rate from \$25 to \$30 a ton; while the whole rice is sold at \$80 per ton, thus losing a large amount in value.

We commenced to give a history of its operations, and not our own opinion and speculations.

First, the rice that comes to this port from Charleston in the hull, is called "paddy," known throughout India, China and the East, and transported throughout the world in that state and under that name. In India, at the present day, it is hulled by rubbing between stones and balancing a pole across a fence with a stone tied to one end and jumping off and on to lift it up and down.

In our country, the all powerful mill stone and steam are brought to bear by a rapid motion; a centrifugal force is brought to bear which tips the rice on its ends. But previous to this it is screened to sort the small from the large, so as to adapt the stones to the size. I should have mentioned that when the rice is brought to the wharves in ships and discharged into the ware rooms where it is weighed and elevators pass it to the upper lofts of three large granite stores, so they are able to discharge about three thousand bushels per day into these upper lofts. It is carried into screens as mentioned above, and from that conveyed to the millstones, and, from there it is conveyed to the upper loft to a fanning mill to separate the hulls.

Another screening process takes place, and all that is not hulled is sent back to the stones whole. The other passes to the mortars on the lower floor. Here are 12 great mortars, holding 68 bushels. Now commences the beating with the pestles, great iron and wood beams jumping up and down. This is called the beating process in order to get off a yellow coating. Stained by the hull all the rice would be just as good if this was not taken off, but who would buy or eat yellow rice? not I exclaims every one at the table; but I want white rice and clean.

Be it so then, but at a greater cost. After being beat for three hours, it is then passed up into the upper story, where another screenin: takes place to separate the flour. It passes to an upright cylinder covered with sheepskin with the wool on, surrounded by a wire sieve.

This is called the polishing process, or in other words "pearling" rice. It then passes to a cylinder with three apartments; the first lets the dirt through, the next lets the fine broken rice, and last the finished rice. From these it descends to barrels and casks to be packed. Here then is a beautiful system, where manual labor is not wanted from the time the rice leaves the loft till it is finished and put up, with only one exception, and that is the putting in the mortar and taking out; this is the only break in it.

Here, then, are eleven operations the rice undergoes before it is finished. It is carried up to the top of the building four times, screened six times. The hulls are used for scouring woolen cloth; the flour is used for fattening hogs and horses, and they have what is called screenings for poultry. Farmers coming to Boston should not go empty handed when this stuff is almost as cheap as corn, and 50 per cent. more nutritive in it. The broken rice is sold to factories for 22 cents per pound for sizing.

We consider this one of the grandest and most perfect institutions the world can show. They have nothing equal to it in the great rice marts of Savannah and Charleston, and we wish all prosperity to it. As it becomes more known it will become more profitable, as they are unable to supply the market after running fifteen hours per day, and they have commenced running day and night.

In connection with this subject, we should mention the great want the planters of the South and of other parts of the world feel, for some machine by which each planter can hull his own rice. As it is now, they are obliged to submit to the great mills of Charleston and Savannah, and send their crops hundreds of miles to be fitted for market. A machine that would give this power to the planter would be valuable. Many machines have been invented, but nearly all have been too expensive, and of no durability, and altogether too bulky.

We have within a few weeks seen a machine, invented by one of our most ingenious machinists, Mr. Daniel Lombard, of this city [Boston], which, for simplicity, cheapness, and durability excels all others. And we have every reason to believe Mr. Lombard has accomplished the long sought for machine, and that the planters will render to him thousands of thanks, as well as line his pockets.

If this machine, at a cost of a few hundred dollars, with one man to turn it, will turn out from 75 to 100 bushels per day, he is sure of a fortune. We have often felt displeased to see what reluctance our rich men feel in encouraging or aiding inventors, and to see some of the most valuable inventions of the age lie untouched.

I. W.,

[in Massachusetts Plowman.]

GUANO.—We saw, yesterday, says the Savannah Republican of Wednesday, a large lot of this article landing from the schr. Virginia, and we understand that there are 172,000 lbs., now in port destined for the interior, nearly half of which is for Warren county. We are pleased to see this active movement, as it presages a resuscitation of the soil of our beloved old State. It has doubtless been prompted by the liberal policy of the Central Railroad Company in carrying fertilisers at a price just sufficient to defray expenses. We trust the bread thus cast upon the waters may have a speedy return in the increased production of cotton and other products which pay freight to the road.

FARMING AS A VOCATION.

The life of the farmer has ever been considered by himself, one of toil and drudgery, but with how much reason, it may be well to ask, to investigate, and to become satisfied. It is the lot of man in general to have an occupation. If not necessary for a living, it is made a means of obtaining wealth, fame, or power. A few, born to wealth or titles, pursue no calling but that of pleasure. Such lead miserable lives, and do little or no good in the world. It is appointed unto all men to work. It is necessary to health, strength, comfort, and happiness. But to work, it is not necessary to guide the plow or harrow, to wield the axe or scythe, to sow or reap. There other kinds of work, equally laborious and fatiguing—other occupations more wearing to the system, and attended with less pleasure. In this country, there are more men engaged in farming than in any other occupation, and in the rural districts, they constitute a large majority of the inhabitants, and, as a consequence, see and know little of the drudgery of other occupations. In their visits to the mechanic, or manufacturer, they see him sheltered from the storms and cold, they notice that his skin is less tawny, his hands softer and whiter, and his clothes, perhaps, less soiled and torn; and it is but natural that they should think his labor less hard than theirs. They see the merchant behind his counter smiling to his customers, or at his desk counting his money, and they cannot think he works; and they go away wishing that Providence had been as kind to them. They see the lawyer advocating the cause of his client, uttering with eloquence witty or grave sentences, bringing tears to the eyes, or laughter to the countenances, of judge, jury, and spectators; and they go away, repining that the gifts of Providence are so partially bestowed. They see not the mechanic at work by his lamp, while farmers are reading by their firesides; they see him not with his accounts, anxiously looking forward to the time when his payments become due, or his flour barrel empty, or his pork barrel out; they see not the anxious and care-worn countenance of the merchant, while alone in his office, just before his bank note becomes due, and no money to meet it; and they see not the lawyer in the still hours of the night, with aching head and wearied eyes, looking up authorities to sustain his cause on the eve of trial.

It is they themselves—the farmers—that have set the stamp of drudgery upon their occupation. No one else admits or believes it. The lawyer, the doctor, the merchant, and the mechanic, envy the farmer his farm and his happiness—his bread, butter and cheese—his fruits, meats, and his grains, the product of his own labor, that he can eat with an appetite sharpened by muscular exercise, and knowing that they are pure and healthy. Ask the mechanic what he is striving for, and what is his aim. *For a home*, a piece of land that I can cultivate, and eat the fruits of my own raising; the merchant will tell you that he hopes to end his days upon a farm; and the lawyer and doctor will tell you the same. What if their faces are blanched while the farmer is tawny—their fingers delicate and supple, while the former are dingy and clumsy—their garments fine and clean, while his are soiled and coarse. Each is appropriate and equally respectable. A chimney-sweep in white linen, or a farmer at his plow in fine broadcloth, would be an object of ridicule, equally with the lawyer in rags. More men make themselves ridiculous by overdressing than the reverse. If the farmer has not delicacy, he has strength, and power of endurance—far more valuable. If he is not educated and refined, it is no fault of his occupation, did he himself not think so; for no one has more leisure for reading and study. If he混gles less with the world, and learns less of etiquette, he has opportunity for thought, and learns less of deception, intrigue, and chicanery, which make no one happy.

Whose sons make the most enterprising and successful merchants, the most profound statesmen, the most eminent engineers, and the most learned lawyers and divines? *The Farmer's*. They go forth from the farm, with healthy blood in their veins, inherited from healthy parents, and consequently have healthy and vigorous minds. Who are looked up to as defenders of our homes in case of invasion? Whose names are in our jury boxes, and whose names are sought for (aye, a little too often successfully), on a bank note? Brother farmers, let us not repine at our lot; let us not envy others while they envy us; let us honor our calling, and it will honor us.

"Honor and fame from no condition rise;"
"He that yould win, must labor for the prize."

[*Genesee Farmer.*]

HOW SHOULD WE IMPROVE OUR HIGHWAYS.

This important subject has not been sufficiently discussed heretofore. All acknowledge that our highways should be improved, and in the right way.

Which is the right way? Here is a question which will call out many different opinions. In considering the subject many things must be considered. First, the condition of the soil; second, the hill and the valley; and third, how should a road be made on level ground. Turnpiking has gone into disuse in many localities, and yet it is, in many places, deemed necessary to throw up the highways in this form. In swamps and such localities, turnpiking is thought to be the more judicious mode of making good roads, and keeping them passably dry. This can only be done by a thorough system of ditches and draining.

I purpose to give my plan of making a road in soil where it is apt to cut up, and become rutty by reason of wet, and one which trial has shown to be the most durable and cheaply made road—all things considered—now in use. Open a trench in the centre of the highway from nine to twelve feet in width and one foot in depth, with plow and scraper. Stone being plenty in almost every country, fill this track with small field stone, and pound down the surface with hammers smooth and regular. Having done this, go to a gravel bed, (most every neighborhood having one,) and draw on to the stone bed thus prepared from five to eight inches of gravel. Level down and make the track on the whole a little rolling that the water may run off. The dirt that was plowed and scraped out of the track, can now be hauled up on each side, and rounded off, to correspond with the gravel, scooping out the gutter to form good drains on each side. This kind of a road—and we have thoroughly tested it here—will last for years. Its cheapness equals its durability. Its smoothness at most all seasons of the years—in wet or dry weather—is unequalled by any other kind of road in use. In clay ground, it is better, far better, than plank; and when once made, you need not trouble yourself about repairing it once in a decade. If the gravel wears out, as it may from constant and long use, replace it in quantities sufficient to keep the road smooth.

On gravelly soil, not liable to cut up, we use gravel from a clean bed, and draw on a sufficient amount to make a good round track. In this kind of soil, stone need not necessarily be used. In sand beds the stones may be used for a foundation, and then covered with gravel, as above described.

Now let us look a little to our hills, &c. We have a good deal of rain in most all countries. Our hills, therefore, are apt to wash in consequence. The only sure way of managing them on a permanent plan, is to put in stone as I have already described, and cover with gravel, not forgetting side ditches; in addition to which water breaks

may be made every eight or ten rods. These need not be large, and everybody knows they will turn off the water in an effectual manner, and thus preserve the road. Simply turnpiking a road on a hill does not seem to amount to much, as natural soil will wash away about as soon as it is thrown up.

There is a radical defect in our system of road making, and it wants improving about as much as anything in the whole range of rural economy.

A road made after the above plan will not cost much beyond \$2.75 or \$3.00 per rod; and every district, there fore can build many rods annually.

This plan is growing more in public favor, year by year—at least with us; and as time rolls on, I believe people will begin to appreciate the value of stone foundations in our roads, and will build as less number of rods, and make those few rods well, so that time and use will not prove their ruin.

T.,

[Genesee Farmer.]

FARMERS' CLUBS.

ANOTHER season with its results and its varied experiences is now before the cultivators of the Farm and Garden and many a fact of practical value has been learned by them during that period. Different individuals, however, seem to turn over different leaves in the great library of Nature, each reading a special lesson of her operations; hence, by the communication and comparison of their experiences, much valuable knowledge may be added to the general as well as individual stock of information. To communicate and compare facts and ideas is the great object of Farmers' Clubs, the formation of which we have from time to time attempted to encourage, we fear, however, but with partial success.

The present is just the time to organize these social meetings, and there need be nothing complex about the matter. Let the people of any rural neighborhood interested in the cultivation of the soil, meet at any convenient place, and choose a chairman and secretary from their number—and they are supplied with officers for a start. Next, let them select a subject for discussion, and all so disposed give briefly their experience—or any facts pertinent to the question before them—the Club is at work. They will soon learn what simple rules are necessary to the furtherance of the objects in view, and can agree upon them as they are needed. Subjects should be selected for the next evening, and it may be well to request one or more brief essays from persons competent to their preparation. No difficulty will be found in the selection of themes both interesting and profitable, in the culture of different crops, the rearing and management of animals, the production and disposal of fruit, &c., for there are numberless questions brought before every farmer in which he is interested peculiarly and should be mentally, and which may be made profitable subjects of discussion. Here individual experience will be made common property, each imparting to the other whatever he has learned not generally known, or which may tend to confirm or refute received opinions.

The sphere of the Club may sometimes be profitably extended by connecting a circulating library therewith, each member paying an initiation fee to be applied to the purchase of agricultural books and periodicals of the higher class, for the use of the Club; and in this way, at a small expense to each, a large amount of reading could be secured to the whole. The many valuable papers now published in different sections could thus be brought before a large circle of readers, and exert a still more powerful influence for progress in farming. Many important books would thus be brought within the reach of those who could not otherwise enjoy the privilege—arousing to

new researches, and deepening the thirst for scientific knowledge.

An important end of the Farmers's Club is the cultivation of the social faculties by this union of those interested in agriculture for their mutual advancement. There is no class or profession which makes less use of the principles of association than the farming population, and none to which it can be of greater benefit. The knowledge of the best methods of cultivation and management upon the farm, is derived mainly from experience, and new facts are continually coming before the observant agriculturist in every branch of his business. These facts are often of as great value to his neighbor as himself and the neighbor, on the other hand, may have something as important to return. This interchange of facts and opinions is what gives the agricultural journal its value—in a narrower range, and bringing them home more closely and effectively, perhaps, the Club tends to the same ends. It tends also to unite and encourage the farming interest—a mental profit arising from such interchange of information and courtesy.—Country Gentleman.

MANURES FOR GRASSES.

NEARLY all the experiments which have been made with artificial manures for grasses, indicate that, like wheat, barley, oats, etc., the grasses proper—such as timothy, rye-grass, etc.—require a large amount of ammonia. In the park at Rothamstead, which has been in grass for a great number of years, and the crop frequently made into hay and removed from the land, manures containing much ammonia were very beneficial on the grasses, while those furnishing potash, soda, and other inorganic substances, had the effect of causing clover and other leguminous plants to spring up and flourish. This effect was very marked, and the result fully sustains the deductions made from direct experiments on clover, wheat, barley, etc. We are warranted in concluding that clover and other leguminous plants require a larger amount of alkalies in the soil, than wheat and the grasses generally, while the latter require manures rich in ammonia.

Some experiments recently made in Scotland, by Thos. Ferguson, also favor this opinion. Land recently seeded with rye-grass and clover, was top-dressed with various fertilizers. Those furnishing a free supply of ammonia and nitric acid, increased the rye-grass to such an extent "that the clover plant was choked, and came up very thin in the aftermath." One hundred and twelve lbs. of sulphate of ammonia, costing \$4.50, gave an increase of 1,524 lbs. of hay per acre; 224 lbs. of Peruvian guano, costing \$6, an increase of 1,260 lbs.; 112 lbs. nitrate of soda, costing \$5, an increase of 1,540 lbs.; 280 lbs. of superphosphate of lime, costing \$5, an increase of 292 lbs.; while sulphate and muriate of potash gave an increase of only 30 lbs.—Genesee Farmer.

THE SUGAR CANE AT THE WEST.—A traveling correspondent of the *Portland Advertiser* says:

Throughout the State of Ohio, Indiana and Illinois, the Chinese Sugar Cane has been most extensively cultivated during the past season, and with such happy results as promise to make "Sorghum" one of the staple products of this region of the country. The Syrup is really very fine, possessing a flavor which many consider superior to the best refined molasses from New Orleans. I find it figuring on the "bills of fare" at the best hotels in this city, as well as in St. Louis and Chicago, and from the way it is called for by the guests, should judge that it has become a favorite luxury in the West. There is some difficulty as yet in finding a process for converting the molasses into well granulated and crystallized sugar, but it is said some recent experiments in Northern Illinois have been attended with very favorable results.

PRACTICAL FACTS AND HINTS ON HORSES.

BY JOHN GEORGE DICKINSON, M. R. C., V. S. BOSTON, LINCOLNSHIRE.

I purpose contributing to the *Edinburg Veterinary Review* a succession of papers, made up of odds and ends, put together in writing in the manner most easy and convenient for a practitioner engaged constantly, and whose time may strictly be said to be not his own.

The first case I have chosen is one showing the evil influence of the bearing rein. A bay gelding, seven years old, the property of a carman, was brought to me, presenting the following symptoms:

Flow of frothy saliva from the mouth, with peculiar spasmotic twitching of the muscles of the face and throat; there was difficulty of mastication and swallowing; the head was subject to violent jerks or twitches, attended with much pain, causing the animal to run back. The symptoms had appeared after the owner had thought fit to punish his horse with a severe bearing rein. I at once removed the cause, ordered hot fomentations and friction to the affected parts, exhibited stimulants, and all symptoms subsided, with the exception of a slight cough.

We have often been told that the practice of using the bearing rein, very frequently produces roaring in horses, but the results as observed in this horse, have not hitherto been noticed so far as I am aware. In communicating the facts to Mr. John Gamgee, of the Edinburg New Veterinary College, however, I obtained a very satisfactory explanation. Mr. Gamgee considers the symptoms due to nervous derangement, from pressure indirectly exerted by the lower jaw on the jugular vein, the freedom of the circulation being also otherwise impeded from the uplifted position of the head, &c. Mr. Hunting, of South Hetton, has informed Mr. Gamgee that he believes megrims is due to pressure on the veins at the roots of the neck, by the collar, in peculiarly-formed horses, and he asks, "Who has known of a saddle horse affected with megrims?" Moreover, Mr. Hunting says, all horses subject to megrims may be permanently relieved if worked with *pipe collars*. Dealers and others in some parts have learned that some horses have megrims when worked with the bearing rein or collar, whereas they are free from the disease if put to work with a simple breast-plate. As Mr. Gamgee says, we have a more rational explanation of tight-reining causing roaring than is usually given. It is true, the old explanation is sometimes sufficient, that tight-reining distorts the respiratory passages, and induces constriction of the trachea, &c., resulting in permanent interference with the breathing; but sometimes such mechanical interference is not the result of the use of the bearing rein, and we have the common lesion of the larynx or atrophy of its muscles. In these cases, according to Mr. John Gamgee, the superior laryngeal nerve has suffered through the repeated interference of the circulation of blood to the brain, and the early symptoms indicate general disturbance of important functions, such as those of the lungs and digestive organs, which are under the control of the pneumogastric nerve.

I beg to ask, if we find so much interference resulting from tight-reining, and confining the horse's head in an elevated position, on what principle can we defend the use of high racks? Our animals show their preference to a more natural method of picking their food by pulling the hay out of the lofty recess, and when on the ground they leisurely partake of it. This should never be lost sight of in the construction of stables.

AGITATING PLANTS.—It is a remarkable fact that trees which are regularly shaken every day in the green-house grow more rapidly and are stronger than others which are kept unagitated.—*Hogan.*

HOW TO OIL A HARNESS.

WE all know that it is of great benefit to oil our harnesses, yet many of us neglect to do it, because we regard it as a dirty job; but it is easy enough, if done right. My process for doing it is as follows:

First, I take the harness apart, having each strap and piece by itself; then I wash it in warm soap suds. I used to soak it in cold water for half a day, as others did; but I find that warm water does no harm and much facilitates the job. When cleaned, I black every part with a harmless black dye which I make thus:—One ounce of extract of logwood, twelve grains bichromate of potash, both pounded fine; upon that I pour two quarts boiling rain-water, stirring until all is dissolved. When cool, it may be used. I keep it on hand all the time, in bottles. It may be applied with a shoe brush, or anything convenient. If any one objects to the use of this blacking, fearing the bichromate of potash it contains would injure the leather, I would just say that this kind of potash will not injure leather, even when used in a much larger proportion. The blacking generally contains copperas—a sulphate sometimes made of oil vitriol and iron, and it is found that it will eat out the life of leather, unless used with great caution. When the dye has struck in, I go through with the oiling process. Some have a sheet-iron pan to oil in, which is better than any thing; but I have a sheet of iron nailed to a board; it is about two by three feet square. This I lay upon a table, and I lay a piece or part of the harness upon this, and with neats-foot oil applied with a paint brush, kept for the purpose, I go over it, oiling every port is oiled. The traces, breeching, and such parts as need the most, I oil again. For the last oiling I use one-third castor oil and two-thirds neats-foot oil mixed. A few hours after, or perhaps the next day, I wipe the harness over with a wollen cloth, which gives it a glossy appearance. Why I use some castor oil for the last coat, is, because it will stand the effects of the atmosphere, the rain, &c., much longer than neats-foot oil, consequently the harness does not require oiling so often by its use. One pint of oil is sufficient for one set of harness.

The common way of oiling a harness is to apply as much neats foot oil containing lamp-black as the leather will take up; then washing off with castile soap and water. This way is not so good as mine, because it makes the harness smutty, and also the soap that is used contains barilla—a strong alkali, which cuts up and feeds upon the oil in the leather, and the weather (especially if rainy) soon renders the harness stiff and unyielding as before; the wax in the threads is also destroyed, and the stitches give way. I have experimented with different kinds of oil, and find that the kind, and the process, I now use is the best.—*New England Farmer.*

REST AND DIGEST!—There is no doubt that moderate exercise promotes digestion, but too active exercise retards it. An experiment was once tried by some physiologists in England to test this theory. Two fox hounds were fed with a full meal. One of them was taken and put on the trail of a fox and run for a few hours. The other was left to enjoy his leisure at home. At the same time, both were killed and opened. The food of the one that staid at home was nearly all digested—that of the one that had been exercised violently in the chase, only partially digested.

 A farmer on the Wabash has made four hundred gallons of molasses from the sugar cane grown on a single acre of ground the past season. The molasses selling readily at fifty cents per gallon, gives him two hundred dollars as the return of his crop on a single acre.

A WORD TO YOUNG MEN.

Pay as you go.—Earn before you Spend.

HERE is a rule of life of high import to young men. How much of self respect, of public confidence, and of manly feeling, has been saved by its observance.

You stake your credit upon what have not earned the right to enjoy. Is it fine clothes, good living, or personal ornaments—what right have you to them except the right of having first earned them by the sweat of your brow, or brain? Is there not some feeling of personal degradation in enjoying these things at the expense of tailor, jeweler, or some other person.

You hoped to pay for them when you made the purchase! On what assumed grounds was this expectation based? It may be you will do so—more likely you will not—and then what follows? Disappointment to your creditor, and renewed promise and disappointment. You withhold from him what is right, what he cannot well do without. You put yourself in his power to sue, to harass and to taunt you. You suffer humiliation, you avoid him in the streets for fear of duns—your manhood, and pride of manly character are abased—you feel yourself somewhat less a man with an officer or an importunate creditor at your heels.

And then what shifts, what evasions, what shameful devices—what injuries to your moral sense, what loss of self-respect and courageous self-confidence, follow. It may be the beginning of evil with you, the temptation to the commission of some crime, which you may hope to commit and escape detection.

Does it require courage to withstand the temptation to enjoy what is not yours by right of honest purchase and full payment? Courage is a manly and noble quality. Its exercise will elevate you, give you strength and power. An act of courageous self-denial, conscientiously performed, will inspire you with self-confidence and self-respect—ensure you sweet peace of mind, and the confidence of your acquaintances.

There are heroic periods in the lives of men. May it not be the heroism you are called to exercise, young man, to put your foot most sternly upon the temptation to buy what you have not the present ability to pay? What if it costs your pride some humiliation? What if your associates turn their backs upon you—theirs is the shame, not yours. Dare to be right and do right. This is heroism.

You avoid a world of temptation by keeping out of debt. You secure your personal freedom, and independence, your peace of mind and conscience, by it.—*Ohio Farmer*,

HORSES STIFFENED AND HOOF-BOUND—A horse that is driven on a hard road is liable to get stiffened. I have seen valuable horses driven on our plank roads a few days get quite lame. I reasoned to myself of the cause, and produced a remedy which proved effectual. I have since tried it on foundered, or hoof-bound horses, and with good results. I made a solution of salt, and water, and applied it three times a day, by washing the legs and pouring upon the bottom of his feet, and holding them up a few minutes to let it strike in, and saw the wonderful effect in a few days. I account for it in this way: Salt will extract moisture from the atmosphere, which keeps the feet moist all the while; it acts nearly like melted grease upon the foot. The hoof becomes tough, but yet pliable. Like a chunk of wood saturated with salt or brine, it is tough, yet moist; and so with a horse's foot. And here let me add, the habit of rasping the cracked hoof to toughen it is all folly. Apply your brine, and it will effect a cure. Try it, and blame me if it does not.—*Ohio Cultivator*.

THE ARTS OF BEAUTY.

In a recent work on "The Arts of Beauty," by Lola Montez, alias Countess of Lansfeldt, are many good and sensible things. And among these, one of the very best is the following admirable and, we believe, infallible recipe for beautifying the female form. The principle could also be applied to males as well as females:—*Life Illustrated*.

The foundation for beautiful form must, undoubtedly, be laid in infancy. That is, nothing should be done at that tender age to obstruct the natural swell and growth of all the parts. "As the twig is bent, the tree's inclined," is quite as true of the body as of the mind. Common sense teaches us that the young fibers ought to be left, unumbered by obstacles of art to shoot harmoniously into the shape that nature drew. But this is a business for mothers to attend to.

It is important, however, that the girl should understand, as soon as she comes to the years of discretion, or as soon as she is old enough to realize the importance of beauty to a woman, that she has, to a certain extent, the management of her own form within her own power. The first thing to be thought of is health, for there can be no development of beauty in sickly fibres. Plenty of exercise in the open air is the great recipe. Everything should be done to give joy and vivacity to the spirits at this age, for nothing so much aids in giving vigor and elasticity to the form as these

I have to tell you, ladies—and the same must be said to gentlemen, too—that the great secrets of acquiring a bright and beautiful skin lies in three simple things—as I said in my lecture on Beautiful Women—temperance, exercise, and cleanliness. A young lady, were she as fair as Hebe, as charming as Venus herself, would soon destroy it all by too high living and late hours.

THE SCIENCE OF GOING TO BED.—The earth is a magnet, with magnetic currents constantly playing around it. The human body is also a magnet, and when the body is placed in certain relations to the earth, these currents harmonize—when in any other position they conflict. When one position is to be maintained for some time, a position should be chosen in which the magnetic currents of the earth and the body will not conflict. This position, as indicated by theory, and known by experiment, is to lie with the head towards the north pole. Persons who sleep with their heads in the opposite direction, or lying crosswise, are liable to fall into various nervous disorders. When they go back to the right position, these disorders, if not too deeply impressed upon the constitution, soon vanish. Sensitive persons are always more refreshed by sleep when their heads point due north. Architects, in planning houses, should bear this principle in mind.

[Are any of our readers "scientific" enough to tell us whether there is any "sense" in the above? The *Scientific American* copies it without comment, but we are not yet quite satisfied. Let the savans speak out!—JR. ED.]

SORGHUM SYRUP—A prodigious number of saccharometers for testing the strength of syrups have been made and sold in this city during the present autumn. Their purchasers, as we have been informed, were mostly western farmers who obtained them for testing syrups made from Sorghum Cane. From this we infer that the new sugar plant was extensively cultivated during the past season, and that the syrup made from it will take the place, in a great measure, of common molasses, among our rural populations.—*Scientific American*.

**REPORT ON CORN, READ BEFORE THE
Newbury Agricultural Society.**

CORN, VARIETIES, USES, CULTURE, MEANS OF PRODUCING THE
LARGEST CROPS, HARVESTING, &C.

EVERY one who is conversant with farming, is aware of the great difference in the capacity of the soil for growing good crops of corn. A deep, rich, moist soil is best adapted for corn. The corn crop is of vast importance; and no farmer can get along well without it, as we mainly depend upon it for bread; and it is generally considered the most wholesome we use; and on the corn crop we mainly depend for a supply for our stock. In fact, no farmer can feel truly independent without a good supply.

Full cribs and fat stock are what the farmer delights to look at. And for us to feel truly our dependence for a supply of this, one of our greatest temporal blessings, we have only to refer back to 1846, then was witnessed the effects of a short crop; and poor stock was the result, a sight that no person likes to look at. In fact, if we wish to be truly prosperous people, we must raise plenty of corn, and by that means we may be able to raise a plenty of horses, mules and hogs, and not be dependent on Kentucky for a supply. And as we desire the prosperity of our District and State, we say to one and all, raise your own stock, which can be done in Newberry; for the stock exhibited on the Fair ground at the annual exhibition, will amply prove it; and then, and not until then, can it be said of us that we are a truly independent and prosperous people.

VARIETY.

Of the different varieties of corn, we prefer the large white variety, a cross between the flint and gourd-seed; it makes a beautiful bread, and is not so hard for stock as the flint variety, and is much firmer than the gourd-seed. Any of the different varieties may be greatly improved with proper attention. Every farmer should gather his seed from the field at gathering time, by going over and selecting from the best spots, the stalks that have two or more ears, and put it away carefully with the shuck on till planting time. It should then be shucked, and the ears with the largest grains and the smallest cobs selected, and both ends shelled off and the centre taken.

USES.

We have but little to say about the uses, as it is an easy matter to use it after it is made. We would recommend the practice of grinding and cooking it for stock, instead of the old plan of feeding it whole, as it is said to be a saving of at least one-third.

CULTURE, THE MEANS OF PRODUCING THE LARGEST CROP,
HARVESTING, &C.

Upon the preparation of the soil mainly depends our success; for we cannot reasonably expect a large yield without a thorough preparation. If the land to be planted in corn is stubble, it should be turned over in the fall, in the latter part of October, or the first of November, with a two horse turning plow, from four to six inches deep, followed in the same furrow by one of Broil's two-horse subsoils, as deep as two mules can draw it, and remain till planting time; and no stock should be permitted to run on it. But if after cotton, which plan we prefer, because it is very difficult to get a stand on stubble, on account of the bud worm, and corn grows off much better after cotton. The cotton stalks should be plowed up in January, by running two or three times in the rows with a long scooter plow, and let it stand till just before planting time. It should then be plowed deep and close with a subsoil scooter plow, and if the land is broken or hilly, and has not been ditched, it should be, for every farmer try

to save his land, and this is one important step towards it; this being completed the manure or the cotton seed should be hauled on the land, and if the land is high and dry and the season suit, the planting should commence about the 10th of March. The same process should be followed on stubble, as on cotton land. If the land is level the rows can be run straight, but if broken and ditched, the rows should be laid off by the ditches, commencing at the upper ditch and filling out to the lower ditch; the rows should be five feet wide, laid off with a gauge, which can be done very easily by a very simple arrangement. It is the only plan to get the rows all of a width. Where the rows are horizontal, we recommend the practice of drilling, as it is the only plan that can be followed on broken land, and it has the advantage in cultivation. Part of the roots are not cut, and it will yield more to the land than hilled corn; the rows should be laid off with a shovel plow; followed by a two-horse subsoil plow as deep as it can be drawn, the seed should then be dropped in the bottom of the furrow, about twenty-eight inches apart, or an ordinary step on ordinary land. The better the land the closer it should be, and from three to five grains should be dropped in a place. It is better to thin out than to re-plant, which rarely ever pays. The dropping should be done by a careful hand. The cotton seed or manure should be put in the bottom of the furrow, a handful close to the corn on both sides, it should then be covered by throwing two light scooter furrows on it, making a nice sharp ridge. As soon as it commences coming up the ridge should be hoed as harrowed off, as soon as it is well up it should be re-planted, and run round with a sub-soil, and followed by a scooter plow, making four furrows to the row; the hoes should then follow and chop it to a stand, leaving one stalk in a place, and put a little dirt to it; it will then stand from three to four weeks; it should then be run round with a wing scooter, the wing to the corn, lapping the furrow nicely; the hoes should be dropped in the furrow half way between the hills of corn, the rows should then be plowed cut with the shovel plow, with a wing on next the corn, which will lap the furrow out smooth and nice; it will then stand from two to three weeks; it should then be plowed with the sweep plow; the hoes should then follow and chop out the weeds and grass. It is then laid by, which should be done when the forward stalks commence showing the tassel. The time to commence saving fodder is when the corn commences getting hard, it is better to loose some fodder than injure the corn. The fodder when pulled should not remain more than one day exposed to the sun; it should then be gathered together and piled, and remain until it goes through a sweat; it should then be spread, and when dry should be housed. The proper time for gathering corn is as soon as the first killing frost comes; it should then be gathered and housed dry. That intended for bread, or to keep for a length of time, should be put up in the shuck; it will keep for several years, if this plan is followed.

Respectfully submitted,

JOHN R. SPEARMAN, Chairman.
[Conservatist.]

TOBACCO FOR WIRE-WORMS.—Hiram Spear, of Springfield, Bradford Co., Pa., says tobacco will effectually prevent wire-worms from destroying seed-corn. Boil one pound of good tobacco in water enough to cover a bushel of seed corn; pour the liquid on boiling; stir till cool; spread the corn to cool, and plant. He says the root and sprout will partake of the tobacco sufficient to prevent the worms touching it. It is easy tried.—*Tribune*.

LAND SKINNERS.

This term applies to a class of men—farmers, shall we say?—who want to get the increase of land without making any compensation for its use.

They may be found in almost every section of the country. If they crop their land, the product is all sold and carried off the farm. Not the grain simply which they raise; but the straw, if the crop be barley, wheat or oats, and the stalks, if it be corn. Only cattle sufficient to meet the necessities of the family, are kept on the farm. These consist of two or three half fed cows, as many lean pigs, a span or two of horses; or, in their stead, the frames of one yoke or more of oxen. What manure they make is all required for the garden, or for one or two acres of corn ground.

With this management, the land very soon fails to yield its increase of grain, and then grass is tried. For a year or two a tolerable crop is produced; but this, too, is sold and carried off the farm, and, as might be expected, very soon the hay crop is too inconsiderable to meet the expenses of the farmer's family; and grain growing is once more tried, but with no better success than formerly.

Under such management, it is no wonder that the man concludes that his land is too poor to pay for cultivation, and he sells at a sacrifice, and "moves out West."

Such a man is a "land Skinner," and whether among the rocks of New England, or the deep, loamy soils of the west, he is the pirate who, without compensation, appropriates to himself the products of mother earth.—*Rural American.*

NEGROES—HIGH PRICES!—A goodly number of negroes were sold, among whom were able-bodied field hands, which brought the following prices:—\$1,630; \$1,405; \$1,425; \$1,505; \$1,405; \$1,190; \$1,350; a boy weighing 99 lbs. sold for \$1,105; one who had his shoulder dislocated, and his little finger on his left hand injured in some way, sold for \$1,200. A likely young girl, about 18 years of age, good field hand, brought \$1,300. A negro woman, rather elderly, with three children, the eldest about ten and the youngest about three, brought \$2,400.—*Winnisboro (S. C.) Register.*

The demand for slaves exceeds anything we ever before witnessed in this country. At several large sales in the country, during the last ten days, besides the professional traders present, every other man seemed anxious to purchase one or two for his own use. The prices given are enormous. From \$1,200 to \$1,500 for men, and from \$1,000 to \$1,300 for women, are the limits in which we have known negroes sold in the last few days—*Charlottesville (Va.) Advocate.*

TOMATOES AND MELONS.—Use tomatoes largely, both at breakfast and dinner; take hot or cold, cooked or raw, with or without vinegar, fried in sugar and butter, or stewed, with salt and pepper. Their healthful properties consists in their being nutritious, easily digested, and promotive of that daily regular action of the system, without which, health is impossible. Their anti-constipating quality is in the seeds—on the same principle that grapes, raisins, and white mustard seed have stood high in this respect, the attrition of the seed on the mucous surface of the alimentary canal, exciting its peristaltic motion, thus causing regular daily action.

As to the water melons, they are the only things we know which can be eaten with impunity until we cannot swallow any more. The best time for taking them is about eleven o'clock in the morning, and about four in the afternoon. They are not safe for very young children—the seeds are especially injurious to them.—*Hall's Journal of Health.*

WHEN AND WHERE DEEP PLOWING IS Beneficial.

An English paper discusses this subject at some length, and the points brought out will interest and instruct American readers. We condense them in the paragraphs below:

"Deep plowing is most effectual in autumn, exposing the soil to the influence of frost, rain and air, during the winter, which act upon the mineral ingredients of the soil, rendering them available for succeeding crops; also, pulverizing the soil, and thus facilitating the passage of the roots into the subsoil. As regards the period of the rotation, it should precede root crops, (or, in this country, Indian corn,) or may be the first plowing for fallowing preparatory to the wheat crop.

"Deep plowing is most beneficial to stiff clays, and as a rule, we may plow deep when the subsoil is of the same character as the surface, if both are tenacious, or when the subsoil is composed of good clay, only requiring atmospheric influences to sweeten it. Deep cultivation should be avoided in nearly all very light soils, and in plowing for crops after large applications of manure, thus outraging it too deeply; or in turning under clover or other green crops. Deep plowing in autumn, on most clays, is equal to half dressing of manure. Clay from which the air is excluded exhibits a bluish color. After draining, it is not advisable to bring to the surface more than 2 inches of clay subsoil at a time, otherwise more is brought up than the frost, &c., can fit for growing good crops.

BE GOOD FOR SOMETHING.

EVERY human being was sent into the world to perform some good use or other. It may be in an humble sphere, but nevertheless a good use, or it may be in a higher sphere, but perhaps not more necessary than that of the humble station, and, therefore, not more honorable in itself considered. It is a duty imperative upon every individual to fit himself so as to be good for something.

Any man or woman who may think themselves exempted from doing this, on account of being born wealthy, or from any other accidental circumstance of rank or position, either mistakes the object of their creation or perverts the facts which point out their duty in this respect. We have been amused with the arguments used by a very sensible Chinaman made before a band of Melbourne miners in Australia. They show what value other people whom we consider barbarians, place upon skill, though it may be in humble occupations and stations, and it gives a lesson which ought to impress us with the idea that the humble man, who is good for something, is of vastly more consequence to the community than an ignorant loafer, though he may boast of high blood and great riches.

The Melbourne miners proposed to drive the Chinamen out of the country, and they petitioned the Legislature to do it. One of their tribe, named Quang Chew, thus plead against the proposed injustice.

"Among our numbers we have men well skilled in gardening and the culture of all sorts of fruits and flowers; likewise carpenters, and workers in fine wood and in ivory, which we hear abounds in your forests; also cunning agriculturists, who know how to manage the worst as well as the best soils, particularly Leu Lee, and his first nephew; also men accustomed to make ornamental bridges, and a skillful man named Yaw, who can make the best kites, having wings and great glass eyes not to be surpassed; likewise Yeu, who understands the breeding of fish, and birds, and dogs, and cats; also many excellent cooks who would allow nothing to be wasted; and moreover we have lock makers, and many umbrella makers, conjurers, &c. Why should all these things be sent back with disgrace?"

ASHES AS A MANURE.

Messrs. Editors:—The question has often been asked, but never to my satisfaction has it been answered, why so little, if any, difference is found in the value as manure between ashes leached and unleached, when applied side by side, on the same land and crop, and under precisely the same circumstances? In other words, what is the use, and what becomes of the large quantity of alkaline and other matters found in unleached ashes, to the virtues of which have long been ascribed their power and value in the fructification of the crop and extra yield of produce, and to preserve which from the influence of climate and consequent deterioration, it has been the aim of almost every one, by preserving them in close rooms and water-tight casks or cisterns, under the conviction that even by evaporation would their value be rendered less, by weakening their efficiency as a dressing to the land when applied to any description of crop, and by which careful preservation their immense and universally acknowledged superiority to other articles, especially as a top-dressing, is ascribable. But in the midst of all this seemingly proof-positive, comes the testimony of those, who declare that they have demonstrated by oft-repeated experiment, that leached ashes are as efficient in their effects, as those that have been thus carefully preserved and applied by immediately covering them, so as to prevent the escape of the volatile gases into the atmosphere. This I consider a subject of great importance, and worthy the closest examination, and as few of my friends in my humble walk of life may be aware of the enormous quantity of ash and alkali contained in some of our crops, made manifest by their incineration, I beg leave to offer for re-publication, the following table of the produce in ashes and alkali, of one thousand pounds of the following woods and weeds, which I find in an agricultural journal of some years standing, the correctness of which I presume may be depended upon, and on the perusal of which I am led again to ask, "what is the use, and what becomes of the alkaline and other matters found in unleached ashes, to the virtues of which have long been ascribed their power and value in the fructification of the crop and extra yield of produce?"

B. W.

Table of the produce in Ashes and Alkali, of 1000 lbs. of the following woods and weeds.

| | Yield of Ashes. | Of Salt or Alkali. |
|---------------------|-----------------|--------------------|
| Salts of Corn | 88.6 | 17.5 |
| Sunflower..... | 57.2 | 20. |
| Vine branches..... | 34.0 | 5.5 |
| Box..... | 29.0 | 2.26 |
| Sallow or Willow.. | 28.0 | 2.85 |
| Elm..... | 23.5 | 3.9 |
| Oak..... | 13.5 | 1.5 |
| Aspen, or Poplar... | 12.2 | 0.74 |
| Beech..... | 5.8 | 1.27 |
| Fir..... | 3.4 | 0.45 |
| Fern, in August.... | 36.46 | 4.25 |
| Wormwood..... | 97.44 | 73.0 |
| Fumitory..... | 219.0 | 70.0 |

[Boston Cultivator.]

REVENGE is longer lived than gratitude. Indorse Mr. Smith's note to keep him from bursting, and he forgets all about it in a month. Pull Mr. Smith's nose, and he will cherish a secret desire to burn your house down for the remainder of his life. Revenge is a passion. Gratitude appears to be only a sentiment. We can all hate; but it is only one man in a hundred that possesses goodness enough to be thankful.

THE man who is attached to the soil, will be always bettering it by kindness.

CAUSES OF FERTILITY.

In a letter to the New York Farmers's Club, Prof. S. W. Johnson, of Yale College, says:

"The labors of chemists, to discover positively all the causes of the fertility of soils, have not yet met with conclusive success. The mechanical structure of soil is of primary importance. Naked rock grows lichen—the same rock crushed into coarse grains, grows a much higher order of vegetable—pulverized fine, the cereals grow in it. Geology, chemistry, botany, physiology, meteorology, mechanics, hydrodynamics, heat, light and electricity, are all intimately combined in the grand process of vegetation. There are sandy soils in our Eastern States, which, without manure yield meagre crops of rye and buckwheat; but there are sandy soils in Ohio, which without manure yield on average eighty bushels of Indian corn an acre, and have yielded it for twenty to fifty years in unbroken succession, the ingredients of these soils being by chemical analysis the same. At present no difference is known between them, except the coarseness of the particles—the first being coarse, while the Ohio sand is an exceedingly fine powder. The power of soils to attract and imbibe moisture and oxygen, was well shown by Schubler, o' Haffen, 40 years ago. Of 13 different soils, quartz sand absorbed in thirty days, 11,000 parts of oxygen and no moisture, while humus absorbed 13 of oxygen and 120 of moisture.

THE FASTEST TIME ON RECORD.—*Porter's Spirit* says the fastest time ever made by an American horse was made by Pryoress, in her running for the late Cesarewitch, in England, over the Newmarket Heath. The distance run was two miles and a quarter and twenty-eight yards, and the time in which it was run was three minutes and fifty-six seconds, the mare carrying 107 pounds. This is at the rate of 1 minute 45 3-4 seconds, or say 1 minute 46 seconds to the mile, two miles at the rate of 3 minutes and 32 seconds, and if carried out at the same rate, the Goodwood Cup distance in 4 minutes and 25 seconds, and a four mile heat in 7 minutes 4 seconds. The two mile rate, however, having been done, is that which may fairly be compared with the two mile time performed by American horses in this country. The "American Racing Calendar and Trotting Record" gives the time of Hagira, a four year old, which ran a two mile heat at New Orleans in 1850, with catch weight, in 3 minutes 34 1-2 seconds—the best two mile time in this country; consequently, the 3 minutes 32 seconds of Prioress is in every way better, and deserves to head the American record.

SHEEP IN TEXAS.—Wool growing is steadily increasing in Texas, and the State will soon number its flocks by hundreds of thousands. The San Antonio *Herald* says that Captain Sweet, late of Laporte, Indiana, has just returned from Mexico, whither he went last fall to purchase sheep. Capt. Sweet went with others, and the whole number of sheep brought out was about 4,000. His portion, about 1,000 head, he has placed on a ranche on the head of Curry's creek, Blanco county. The Captain is delighted with Texas, and is sanguine of the exceeding profitableness of the sheep busines. The *Ledger* says that the wool growers about San Antonio are bringing their wool into market, and mentions several lots. At San Antonio this wool brings from fifteen to thirty-five cents per pound, according to cleanliness and quality. That paper says, for the benefit of wool growers, "tie each fleece in a separate bundle by itself, and take pains to wash the fleece well before shearing. Clean wool brings from thirty to forty cents more than dirty."

GIVE THE PLOW AND THE HOE NO REST.—1. In order to prevent the growth of weeds.

2. To insure needed moisture through the deposition of a greater amount of *dew*, upon which plants so largely depend—softening the earth, so that the moisture that condenses upon the surface may penetrate more deeply, and rendering it more porous for the easier passage of the atmosphere, for condensation in the cooler soil below.

3. To secure a greater absorption of ammonia.

4. To aid in the decomposition of minerals whose elements are food of plants—*N. E. Farmer.*

KNOWLEDGE.—It is in knowledge, Irving says, as in swimming; he who flounders and splashes on the surface, makes more noise, and attracts more attention than the pearl diver who quietly dives in search of treasure at the bottom.

The writer who uses weak arguments and strong epithets, makes quite as great a mistake as the landlady who furnishes her guests with weak tea and strong butter.

Domestic Economy and Recipes.

TO MAKE A CHOWDER.

1st. Procure a hard fleshed fish, like a striped bass—than which nothing is better—one of six pounds will be sufficient for an ordinary family. Clean the fish in the coldest well water; split it from head to tail, and cut it then into pieces, half as large as your hand.

2d. An old-fashioned, round-bottomed pot is indispensable.

3d. Take half a pound of salt pork, slice it and fry it in the pot; then remove the pork, leaving the fat.

4th. Make a layer in the pot of fish; then season this with a little salt, red and black pepper, and a little (only a little,) ground cloves and mace, on this sprinkle a small quantity of chopped onions, and a part of the fried pork chopped or cut into fine pieces.

5th. Cover this with a layer of split crackers.

6th. Another layer of fish, seasoning, chopped onions, and pork, as above.

7th. Another layer of cracker, and so continue till all the fish is used, letting the top layer be of crackers.

8th. Pour into the pot just water enough to cover the whole, set it on the fire and let it simmer, half an hour or so till the fish is tender to the touch of a fork. Great care should be taken that it does not come to a hard boil, but keep it at just at the boiling point. Then remove the fish, crackers and all, with a skimmer, to a deep dish, leaving the gravy in the pot.

9th. Thicken the gravy with pounded crackers, add to it the juice of a lemon, half a tumblerful of good claret, and if it needs more seasoning, a little red and black pepper to your taste.

10th. Pour the gravy over the fish and crackers and all; garnish the dish with slices of lemon, serve warm, eat, and return thanks.

TO IMITATE CORAL BASKETS—Make the basket of pasteboard in any shape you please; dissolve three sticks of sealing-wax in a pint of alcohol; wet the basket with this mixture, and sprinkle on rice which has been abou^t ground; let it dry, and repeat the process until the pasteboard is covered, after which paint it with the mixture until it is red enough. A brush of hair or feathers should be used.

SCARLETINA AND MEASLES.—Mr. Witt, member of the Royal College of Surgeons, has published a pamphlet, in which he states the carbonate of ammonia is a specific for the cure of scarlet fever and measles. He cites Dr. Pearl, of Liverpool, and other practitioners, who have never lost a case out of hundreds since adopting this remedy. Two drachms of the bicarbonate of ammonia, are dissolved in five ounces of water, and two tablespoonfuls of the solution given every two, three or four hours, according to the urgency of the symptoms. No acid drink must be taken, but only water, or toast and water, the system is to be moved by a dose of calomel if necessary! The room must be well ventilated, but the patient protected from the slightest cold or draft. Gargles should also be employed for clearing the throat. The ammonia, it is said counteracts the poison which causes scarletina, and also acts on the system by diminishing the frequency and at the same time increasing the strength of the pulse. As so many children die from these diseases in this country this remedy ought to receive a fair trial from the profession.

TO MAKE SOURKROUT.—Select sound, solid cabbages, slice them across and place the slices in a barrel, in layers of about four inches high—over each layer strew a handful of salt, and some caraway seeds. Press the whole down tightly, and when the barrel is full, place a very heavy weight upon the end. After standing a week, more or less, according to the temperature, the mass will begin to ferment; and when the fermentation is over, the barrel should be headed up. There is no vinegar used in the preparation. Sourkroft is considered to be an excellent anti-scorbutic, and is used as such on board ships on long voyages.—*Gardener's Chronicle.*

FOR FOUNDER.—A recent founder may be easily cured by giving, if a large horse, a pint of salt dissolved in water, at a single drench; give him exercise but no water for a few days after, and then sparingly for a day or two; feed light, and green would be preferable. Repeat the operation about every third day. Strong salt water rubbed on the part every other day, as hot as can be used without burning, will cure the Sweeney on some horses, and they may be worked moderately all the time.

REMEDY FOR BRONCHITIS.—A writer in the Baltimore Sun, who has been afflicted severely in his family by that appalling disease, bronchitis, has found relief from the following remedy: "Take honey in the comb, squeeze it out and dilute with a little water, and wet the lips and mouth occasionally with it." It had never been known to fail, in cases where children had throats so swollen as to be unable to swallow. It is certainly a simple remedy and may be a very efficacious one.

RECIPE FOR POVERTY.—If you want to keep poor, buy two glasses of ale each day, amounting at the end of the year, to \$38 50; smoke three cigars, \$64 05; keep a big lazy dog, \$15; a cat \$5; in all, the snug little sum of \$101 25. Enough to buy several barrels of flour, one hundred bushels of coal, one barrel of sugar, one sack of coffee, a good coat, a respectable dress, a half a dozen pair of shoes—more or less.

PEPPERING BACON HAMS.—A writer in the *Southern Planter*, over the signature of "London," says, "My bacon although invariably excellent, was never so good as last year, when I was induced to drop each ham for five minutes in a strong red pepper tea before rubbing with salt."

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☞ See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—Make ample preparation for a full supply of provisions for your family and servants—also, an abundance of provender for your stock—by planting as soon as the season will allow, full crops of Corn, Irish and Sweet Potatoes, Spring Oats, early Cow Peas, in the drill, for fodder, Lucerne, in the drill, &c. Plant the Chinese Sugar Cane, also, for syrup and forage. We have given full directions for the culture of this plant heretofore.

In preparing for your regular Corn crop, plow or subsoil your land 10 to 12 inches deep, manure heavily and plant early. Do not lose a moment after the danger of late frost is over.

As soon as you have finished the planting of Corn and other provision crops, prepare for Cotton, respecting which see various articles in former numbers of the *Cultivator*.

Sweet Potatoes should now be bedded out, so as to secure an abundant supply of "draws." No crop cultivated in the South is more worthy of attention than the Sweet Potato. It is one of the most valuable esculents for man or beast, and every planter should have full "banks," at the setting in of winter, even if he does not make quite so much Cotton. The Hayti (white Yams,) the Yellow Yams, and the Red "Negro Killers" (so called) are all fine, productive varieties.

Irish Potatoes should be planted in drills 3 feet apart and covered with a thick layer of pine straw or leaves, as heretofore directed; or, scatter manure in the bottom of a deep trench, drop the sets upon this, and cover up with earth, drawing it to the stems as they grow.

THE VEGETABLE GARDEN.—If you have Cabbage plants that have been kept over winter, set them out now. Sow more Cabbage seed to head in the summer; Flat Dutch is the best. Thin out Turnips, as soon as they have four leaves; leaving them at the distance of six inches apart; and sow more Turnip seed; Early White Dutch and Red

Topped Dutch are the best for spring use. If you did not sow Onions seed (black,) last month, do it at once; they will come into use in the latter part of the summer, when all that were raised from the sets or buttons are gone. If you did sow black Onion seed in September, it can now be transplanted. Sow Carrots, Beets, (Extra Early are the finest,) Parsnips, Salsify, Lettuce, Radishes, Thyme, Parsely and Rape (for early greens.) Plant all in rows 15 inches apart. Sow, also, a little spot with Celery and protect them from the sun. When Cherry trees are in bloom, plant Snap Beans; and when Apple trees are in flower plant Squashes (Scallop Squash is the best) in hills 3 feet apart; also, Cucumbers and Muskmelons 6 feet apart; the Nutmeg and Citron Melons are very fine and the earliest; Beechwood Melon is very superior, but a little latter. All vines are greatly benefitted by guano or poultry manure. At the same time, also, sow Okra, Tomatoes and Egg Plants. Asparagus will now begin to sprout; don't suffer any to run up to seed, but cut all down. Cabbages, which have been set out, and are starting to grow, should, once a week, have a watering of liquid manure—a shovelful of chicken manure, dissolved in 10 gallons of water, will be found an excellent fertilizer for them.

All vegetables, that already have a start, should have a good hoeing by the latter part of this month.

Plant a full crop of English Peas, as heretofore directed.

THE ORCHARD AND FRUIT GARDEN. If you have not finished pruning your orchard, do it at once, omitting only such trees as are growing too luxuriantly to bear. Such ought not to be pruned until the leaves are pretty well sprouted. By this method, such trees will get checked and go to bearing; should, however, this late pruning not be sufficient, give them another severe pruning in the middle of July; that will prove satisfactory.

As soon as the trees are beginning to bloom, hang up a number of wide-mouthed bottles, half filled with molasses-water, in your trees—you will catch a great number of insects and thus prevent them from doing injury to your fruit.

THE FLOWER GARDEN.—Propagate Dahlias as soon as you can see the sprouts or buds; with a sharp knife split the stem right through, leaving a piece of the stem and

one or two buds to each piece; plant them so deep as to be covered with at least 4 inches of soil. Tie up all your flowering plants to stakes; the wood of the China tree, when splintered out, furnishes the best and most durable stakes, where Cypress cannot be had. If annual flower seed has not been sown yet, it should be done at once. Recollect, that fine seeds will only need to be covered slightly. If covered deeply, they will not sprout.

A LECTURE ON HEREDITARY BLOOD IN
Man and other Mammalia; in the
University of Georgia.

BY DANIEL LEE, M.D., TERRELL PROFESSOR OF AGRICULTURE.

GENTLEMEN:—No branch of natural science is less studied, or more important than that which treats of the relations known to subsist between parents and offspring. These parental relations extend as well to all cultivated and other plants, as to all domesticated and other animals. Vitality in all its manifestations, from the humblest cellular plants up to the most gifted philosopher, presents no feature more uniform and striking, no law more exacting and inexorable, than that which brings *death* to all that *live*. The total extinction of all organized beings would ensue at the decease of each generation, were not ample provision made, in the great economy of an all-wise Providence, for the endless transmission of life down the line of every species by a law no less certain, no less pervading than that of death itself.

As agricultural students, you will be expected to study organized matter, not only in the double capacity of being ever-living, and yet ever-dying in each generation, but in the double endowment of possible vital changes both in form and function, either for the better, or for the worse as life advances from age to age. The laws that govern at all times these possible changes, work out slowly but securely, an improvement of Blood in one direction, as a reward for obedience to the same, and its deterioration in another direction, as the natural and inevitable punishment for disobedience. It sometimes happens that these anatomical and physiological variations from the parent type, are so slight as to be scarcely perceptible; and many have hastily and erroneously concluded that the blood of all human families, and of all domesticated animals, is very nearly of equal purity, and of equal value. If this conclusion be sound, and true, and in harmony with nature, it follows that there is no essential difference between healthy and diseased blood; that the vital principle in a child, able only to breathe once and die, and that in another child whose vitality lives a century—braving the heat and miasm of an hundred summers, and the no less trying cold and humidity of as many winters—are the same in parental vigor, and of the same intrinsic value. All reasoning leading to such conclusions in reference to the equal purity of hereditary blood, or equal power in any respect, is either based on wrong data, or defective in logical sequence.

Nature loves diversity, loves variety. The rays of the sun are not all of one color, nor of equal force summer and winter, spring and autumn to vivify organic nature. Everything is in motion; everything changes; and one cannot search long for the originals of our best pears, peaches, apples and other fruits; of our common wheat, corn, oats and other cereals; of the sheep that now yield us so much valuable wool; of the cows that supply us with milk, butter and cheese, and not be satisfied that these useful plants and animals have been changed for the better by virtue of some law inherent in their vitality, which is alike favorable and available to the industry and knowledge of man. A little more and a little deeper investigation leads to the conviction that man himself possesses the capacity for progressive and indefinite improve-

ment in a far greater degree than any other living being. Hence, if the bud of one pear tree is worth something more than the bud of another in the way of yielding fruit in due time, then just so far as man stands above a pear tree in the ascending scale of life, must the parental blood of one child exceed in its physical and psychological developments the parental blood in the veins of another child. The antecedents of different fruit trees, and of different human families having been different, the vital principle in each assumes a modified form and character.

The essential superiority of the hereditary blood in one man over that in another, consists mainly of two primary elements:—First. That of a constitutional change for the better, over, not merely the average of the normal condition of the race, but above that attained by the person whose blood is brought into comparison; so when one's moral perceptions, reasoning powers, or muscles, have been long cultivated, under all favorable influences, in a line of progenitors, the functions, whether of mind or body so exercised, acquire peculiar strength with the increased growth of the organs in which they naturally exist. You see the right arm of a blacksmith, and often both arms, who commenced working at his trade early, larger and stronger than those of his brother raised as a clerk in a dry goods store, or as a book-keeper; because the influences brought to bear on these organs have been quite different. Let their sons and grand-sons follow each the occupation of his father, and the peculiar anatomical and physiological powers developed will be more marked in each generation. Virtues and vices run in the blood, or grow on what they feed to an equal degree. Society, however, has the power and uses it, to modify all consanguineous tendencies, and often by its examples and education, wholly overcomes the force of parental blood and instruction. A father who was never addicted to the use of profane language, nor his father nor grand-father, may, nevertheless, see his son fall into this vicious habit by the influence of bad examples constantly set before him. Society may teach him to be a gambler, a thief, or a murderer, in spite of all the restraints of virtuous hereditary blood, and the best efforts of his parents; for, as it is possible for one person to learn to be honest, so it is equally possible for another to learn to be dishonest. The possibility of descending never so low in vice and crime, proves nothing against the practicability of leading a strictly moral life. Every virtuous example is worth much in a community, and tends to purify the blood of the next generation.

The impressions made on the living organism by things barely seen or heard are among the most durable, when circumstances favor such lasting impressions. Jacob took the sheep, goats and cattle of Laban when they were all of one uniform color, and by availing himself of a well known physiological law, produced young stock that was all ring-streaked, speckled, and spotted. Things seen, and acting alone on the optic nerves of parents caused this result. At the siege of Landau, in 1793, there were much cannonading and the explosion of a powder magazine, which kept the women in the district in a state of constant alarm. According to Baron Percy, out of 92 children born within a few months in the district of the cannonading, 16 died as soon as born; 33 languished 8 or 10 months and then died; 8 became idiotic and died before the age of 5 years; and two came into the world with numerous fractures of bones, caused by the explosion. Here is an instance where 59 children were destroyed by impressions made alone on the organs of hearing. Dr A. Combe relates a case where a healthy child was poisoned to death by drawing milk from its nurse while in a fit of violent anger. Fear, hope, disappointment, bodily pain, and many other purely mental, or physical forces affect persons of all ages, but most in the first stages of human

existence, in a way that tells powerfully on the blood of the family, as well as on that of the individual. Civilization has control of the future destiny, not only of the Caucasian race, but by its enterprise, knowledge, capital, ubiquitous commerce and free trade, of all the other races of the human species.

I come now to the consideration of the other material elements of superiority in hereditary blood. It is the fixedness, or depth, strength and durability of an advantage gained, no matter how, by one person or family over another person or another family.

Almost every man knows from experience it is one thing to acquire property, and quite a different matter to be able to keep and enjoy, as a permanent estate, property already acquired. Wealth in hereditary blood is, if possible, a little more uncertain in its abiding place—a little less exchangeable in trade—but it is infinitely more productive of good fruits, and useful to mankind, than any physical achievements of human labor possibly can be. Washington derived from the blood, the milk, and the soul of his mother, virtues and powers whose fruits are likely to bless unborn millions in ages to come. It is from the germ cells of maternal blood that nearly all great men derive the primary elements of their greatness; although the character of the vitality that passes in sperm cells from the blood of the father to his offspring, is by no means a matter of little importance. To render greatness (in the best sense of the word,) a fixed element in parental blood, as it may chance to exist in either parent, society must study and master that part of human physiology which treats^s of the vitality in a *family*, *a race*, and a *species*. For instance, when Capt. Cook discovered the Sandwich Islands, they contained between four and five hundred thousand native inhabitants. Since that time, from some influences, quite obvious to every student of ethnology, their numbers have steadily decreased to about sixty thousand—showing beyond doubt or dispute, that human blood may degenerate—that the vitality in a race or nation, may die as well as the vitality in an individual. To understand how to improve human blood, the first lesson to be learnt is to avoid those adverse agents and influences which deteriorate this vital fluid; and through the poison and weakness thus disseminated and planted in every organ and function, render the body a feeble, a diseased, and a corrupt, half-living, half-dying piece of humanity. The natives of the Sandwich Islands have not avoided the poisons and degenerating influences to which allusion is made; and all can see the consequences. The laws of nature as they affect the human constitution are the same at Honolulu as they are in New York, Paris, London and Vienna. Modern and ancient civilization differ only in their outward developments—not in the least in their physical character. The same vices that made the best man of his age, Noah, a drunkard, and shortened the lives of all antediluvians after Methusalah, were equally powerful in working the downfall of the great city of Babylon, whose walls were 300 feet high, 75 feet thick, and 60 miles in length; and for ages were adored with hanging gardens that were esteemed one of the seven wonders of the world. The dilapidated walls of Nineveh are 40 miles in circumference; and those of Thebes are only littleless in extent. Every distinguished nation which has conquered the rest of mankind, so far as they were known, has in turn been conquered by its own internal vices; and some have been utterly exterminated.

People who cannot govern their own passions and sensual appetites, are only a shade better than wild beasts, and must have masters, or be exterminated—by a law enacted, not by man, but by his Maker. The Indians of North and South America have been unable to abstain from the vices of European civilization. They have had

no master of superior intellect to govern and protect them from their own natural weaknesses and propensities; and the result, is their gradual extinction on the face of the earth. With all its learning, science and advanced civilization, the French nation has found itself incapable of maintaining a system of self-government, and has chosen a master to keep the people from committing suicide. This, however, is merely a temporary expedient. It does not improve the blood of the next generation, nor satisfy the self-respect and hopes of the present. Something more, and somthing better is needed than an emperor to purify the congenital blood of the French nation.

Spain, Italy, the Ottoman empire, and the Mongolian race generally, are in a worse condition than the people of France. Their civilization is older in some countries, and more debased in others; but in all evincing an unmistakable want of healthy vitality. Protestant civilization in Great Britain, Germany and the United States is the youngest of any, and, therefore, displays more activity and vital force than is seen either in Catholic, Mohammedan, or heathen civilization. But is it, in fact, any less injurious to the hereditary blood in the veins of kings, queens, lords, ladies, and merchant princes? With every desirable opportunity to diminish the vices, follies and diseases that weaken and pollute the blood of parents, what have the royal and aristocratic families of Protestant Europe done in two centuries to purify and elevate their hereditary vitality? Why has it been necessary to resort to plebian blood to add physical and intellectual power to the oldest houses in the kingdoms? But one answer can be given; to wit: that the same gross indulgence of animal appetites and pasions which vitiates the blood of the canibals of the Pacific islands is no less prejudicial to the blood of the most cultivated and refined of the human species. One law applies to all of woman born alike; and since the lowest and the highest *strata* of human society are known to be losing their constitutional energies and virility, let us enquire whether those intermediate between the extremes named, are ascending or decending in the scale of parental vitality. Has European and American civilization operated to diminish the number and general severity of human diseases of body and mind, in the last one or two centuries?

No one has made an assertion to that effect. On the contrary, an increase of luxuries among farmers, mechanics, merchants and others, has everywhere tended to produce effeminacy, or feebleness of muscle, of bone, nerve, brain, intellect, conscience, and of the higher social affections. Just so far, and just so fast as modern civilization extends, congenital degeneracy follows. Seeing this, some have ascribed the evil to the occasional intermarriage of first cousins; as though the mingling of really pure blood, however nearly related, could, by possibility, produce impurity. After the closest possible intermarriages for seven generations from Adam, Methusalah lived to the good old age of 969 years; and when the great and virtuous Abraham was, by divine appointment, about to give existence to one of the most remarkable nations the world has ever known, and establish the parental blood whose vitality was to live, and did live in the veins of the Saviour of mankind, he married the daughter of his own father in preference to all other women. To assert that the blood of the mammalia cannot be healthily propagated in the line of first cousins, is to assume that the laws of nature have materially changed since the creation of the milk-giving species, at the head of which stands our own; or to assume, against all probability, and the Mosaic account of creation, that *many pairs* instead of one pair of each species, were formed of dust, simply because the vitality of the race could not long live in a sound condition unless it ever flowed in blood not at all related! This absurd idea has done an infinite amount of

harm in the human family ; and it is but a few weeks since the Legislature of Georgia passed a bill in the House of Representatives imposing pains and penalties, and cutting off the inheritance of issue, in case first cousins should be so vicious as to intermarry. It would show more sound sense to pass a law to hang all handsome ladies for witchcraft.' An error of this grave character must have some foundation; let us see if we can find it.

(To be Concluded.)

THE AFRICAN SLAVE TRADE.

EDITORS SOUTHERN CULTIVATOR—As the African slave trade has been mooted in the *Cultivator*, I hope I can have my say without being suspected of a desire for controversy. So far from it, I now manifest my innocence of such intention, by protesting that I not only am not answering anything written, but hold myself not bound to answer any thing that may be said in reply, should any one honor this communication with a notice. For, I have had quite too hard a struggle with my indolence to put down what I have been, sometime, wishing to say on this matter, to take a position which might require the resumption of my pen. But knowing, if it be deferred too long, politicians may take up the question, when it will be too late to hope for impartial readers. It will then, be like summoning a jury in an exciting cause. They will all have formed and expressed an opinion, or rather, the demagogues will have expressed it for them, mattering not whether they have formed one or no.

I wish to address the readers of the *Cultivator*, because they are, generally, slave holders, and interested in the preservation of slavery, for its merits, and unwilling to hazard it as a foot-ball for political gamesters, or avaricious smugglers. For, when the evil spirit gets into this herd of swine, it would matter not if they should run violently down a steep place into the sea and perish in the water, as fools and brutes should perish, were it not, that they may drag the country with them.

The great difficulty in forming an opinion, in this country, on the subject of slavery is, that the champions, *par excellence*, of the peculiar institution, and who take lead in the matter, do not reason from the sound data of what will, in the end, benefit it, but what is most offensive to the abolitionists. The antagonism has been so bitter, and of such long duration, and it has become so habitual to take the other side, that the presumption is whatever is offensive to them on this subject is right, and the more offensive, the more certainly right. And this mode of reasoning being very short and more convenient than the exercise of dispassionate logic that looks to cause and effect, it is adopted at once, with the relishing seasoning that it spites the abolitionists. If you appeal to such men for humane legislation for the slave, he will think it "unsound on the slavery question," and why? not because he is cruel, but because the abolitionists preach humanity for the slave, and therefore humanity is "unsound." I recollect once, during great excitement on this subject, being present with an old friend at a public sale of slaves by an administrator. My friend was a large slave holder, and one of the peculiar guardians of the institution, and whose friendship I should have been afraid of losing, if I had proposed legislation to prevent an abuse we witnessed at the sale; certainly been charged as not being "sound on the slavery question." I am proud to say this abuse has since been corrected through the influence of a former Senator from this county. The administrator had put up a woman, mother of a large family of children, and sold her, and then put up the older children, and was coming regularly down the steps, too low for humanity, (the crowd, no doubt, being oppressed between the appeals of humanity and the fear of the suspicion of "unsoundness") when honest human nature parted the lips of one of the

bystanders with the exclamation of shame! shame! Then my old friend, whose heart was in the right place, though there was no place for logic in his head, was the loudest in condemnation of the abashed administrator.

These champions may be just men, feeling the sacredness of good faith, and appreciating the rights of property and every other right except one; even magnanimous and kind hearted. But there are a few scattered free negroes in our State who hold their freedom by as sacred a title as any of us hold our lands and slaves, given to them by kind and grateful masters, under the law, as valid as that which authorises the grants to our homes. And though you may trust the reverence of these "sound men" for justice in every thing else, yet they would be willing to cheat these "poor devils" indirectly, or rob them directly of their freedom. Not because they can show it to be just, or right, but it has the crowning recommendation of being offensive to the abolitionists, and proves the "soundness" of the advocate on "the slavery question." It is immaterial to my argument whether the negro would be better off without his freedom for laying aside justice, many white men would be better off to deprive them of so useless an incumbrance as freedom. I only give these cases—as I could give a hundred others—to expose the folly, not to say wickedness, of the peculiarly "sound men." Some of them, I have no doubt, are the legitimate descendants of the old tory—not intimating they inherit the toryism—of whom Judge Crawford used to tell us: who being arrested in Columbia county, directly after the revolutionary war, was undergoing trial before Judge Lynch, and who plead, in his defence, that the war being ended and the contest over, it was then not only unjust but useless to shed blood, in mere wantonness and revenge. The whigs replied that so much blood having been shed during the war, the must have more blood in return. Why, replied the tory, triumphantly, at the happy idea of solving the difficulty that would save his life, why then not kill a negro, if blood is what you want, and then you can get as much as you wish.

We read in the French revolution, how during the September massacre, M. de Sombreuil being about to be executed as an aristocrat, and his daughter clinging about his neck protesting he was not, was given the blood of aristocrats to drink, to prove her "soundness" on the jacobin question; she drank, was pronounced "sound" and for that time saved the life of her father. So, if our "sound men" on the slavery question" should take it into their heads that eating a "nigger" would be peculiarly offensive to the abolitionists, we might expect, in addition to the oath that is required, to see at the ballot box, a tray full of stewed "nigger," to be taken as a test of the "soundness" of voters; and like Sidney Smith's cold missionary, to be taken without mustard or vinegar. When a candidate, to manifest that he is "dyed in the wool," and ravenously "sound" beyond dispute, to recommend himself to the voters, will be seen carrying about a shin bone, gnawing it as a relish; and will eschew pig tail tobacco, substituting nigger heel for a cud in its stead.

I have made these preliminary remarks, with the hope of inducing the reader to examine it, as any other question, upon its merits, and its merits alone, and should conclude them here, but, though I have not much respect for the old judge who tried the tory in Columbia county, yet having a wholesome terror of rails, feather beds, tar barrels and such like horrid instruments of torture; and having shown some of the weak points of the "sound slavery men," now to manifest my own "soundness," I must allude to one of those of the "sound" anti-slavery men. As I am addressing slavery men, I take the one pertinent to my case, and hope I shall be excused from

being cited cited before judge Lynch, if I omit the sins of deeper die, being not material, in as much as my argument is not for them. By their annoying, interference with our rights, they have provoked the extreme slavery "soundness" above complained of, and so much to the injury of the slave. Besides the many other cases that could be given, to prove the injury they have done, the one under discussion is as strong as any. When our people were let alone, they abolished the African slave trade, years before the time limited by the constitution of the United States when Congress was allowed to do it. And but for their driving some of our people into extreme "soundness," no one in the South would now be advocating the measure. For, when left to view the measure on its merits, our people were ahead of many at the North in its abolition. It is consoling to reflect, that while the abolitionists have done this evil, they have unwittingly strengthened slavery in the States. For, I think it plain that several of the border slave, would have been free States, but for abolition thefts and other intermeddling with slaves. They have provoked examination of the question, to the strengthening of the institution at home and abroad, and which has resulted in arguments scriptural, moral and political in favor of the institution that otherwise would have lain dormant. If time and space would permit, many pages could be filled with the evidence. During this century, speeches and compositions in the schools were common in condemnation of slavery. It is within the memory of men now living, that July toasts were given by slave holders in favor of the freedom of the slave, and at the Court Houses of the strongest slave counties &c. &c. But a few years ago, the Missouri compromise was almost universally acquiesced in if not approved, but it has fallen before the arguments provoked by the abolitionists. Thus have devils been cast out through the prince of devils.

The leading reason given for the introduction of wild Africans is, the want of labor in the slave States. But a greater want, and which their introduction would aggravate—is plenty of rich, good, cheap, land. It won't do to say that they are required to improve the land. We have experience to prove they do the contrary. Negroe were introduced into Wilkes county from Virginia, but instead of improving, they wore out and exhausted the soil, and went first to the then new counties between the Ocmulgee and Oconee, wore out and exhausted those; were then carried to Alabama and Mississippi, and have nearly worn out those States, and now are ready to wear out the Mississippi bottom, if it can be done—Arkansas, Texas and all other slave soil in creation.

It is folly to say what men *ought* to do for the good of the country : they *will* do that which is for their *present* benefit, as regardless of the country as if it were anybody else's country. We, sometimes, wonder how we got along in the world when there were no rail roads, steam-boats and the thousand other labor saving machines, that this age is heir to. When coffee was from twenty five to fifty cents per pound, common calico one dollar a yard, salt at two dollars a bushel, and every thing else in proportion. The solution is that there was plenty of cheap fresh land, on which the men only could make an abundance of every thing to eat and take holiday every Saturday besides. And all the women, black and white, remained in the house engaged in domestic manufactures. We are often cited to the many crowded villages and towns as the evidence of the prosperity of a country. Perhaps the *country* as distinguished from the *people* may be prosperous. But I prefer a prosperous, happy *people*, let the country *show* as it may.

Whenever there is population sufficient to support rail roads, and such like conveniences, and maintain the independence of the country, we have enough. And thanks

to the fruitfulness of our women, white and black, (excuse me for not saying *ladies*, as the fashion is,) we are likely to have enough home-made folks, without encouraging the introduction of any more outlandish people, white or black. It is enough to take care of those we have. Having lost Kansas, we cannot hope to have any more slave territory, and we hardly have room now for our own home made negroes. The slave holder must have land in abundance. We know that from experience. Confine him to small territory and he is but the keeper of a poor house, but with his broad acres he is as independent as a feudal lord, and quite as respectable, if he could appreciate his position. But I forget, this is advocating aristocracy, for wealth is aristocracy according to those who obtain the sweet voices of the sovereign people. If you have property and wish to be a favorite of legislation get rid of it, become a vagabond, a supporter of grog shops, and your great merit and worthiness will be discovered through your rags, which your decent clothing concealed. Above all, become criminal, and then your advantages will follow you to the courts; you will then have more challenges of jurors than the State on your trial. If the judge commit any error for you, you can carry the case to the supreme court, but if *against* you the error cannot be reversed—with many other advantages too tedious to mention.

Then, if the advantages of room are to avail in the argument, it must be shown to benefit the poor man. We all know, through newspapers, and other sources, what abject creatures the poor in over-populated countries are, but your poor man with room a plenty, is an enviable piece of fuzzy headed humanity. He can, after whetting his appetite with a bottle of strychnine whiskey, with a stomach that grinds like a corn and cob crusher, take his wheelbarrow of provender, washing it down with a gourd of milk, or skillet of sassafras tea sweetened with molasses, without a grunt, and sleep it off like a negro, breathing like a blacksmith's bellows, with a chorus of steam engine snores, waking in the morning, not only without a head-ache, but even a yawn. And after he rises, blowing on the frosty air a current of vapor from his lungs equal to a tor kiln. And if the precipitated strychnine should kill young chickens in the yard, and the heat of the current thaw the frost and snow like the escape steam from the cylinder cock of an engine, yet there is room for him to snort, and, thanks to space, room to dodge the sirocco too. If he were to hear of the price of coals he would think you meant common charcoal. And as for water, he has a branch full at the back of his lot for nothing, but for which he has not much use, except to cool the strychnine in his stomach, and cook his dinner. He holds washing onc's face, for pride and putting on airs, and would never be guilty of such dandyism, except to make a blaze on his frontispiece through the soot and lightwood smoke, to show, that if not exactly a white man, he is not a nigger. Though it might take half a day's parboiling to loosen the scales on his hide, still, they are made of smoke and our door dirt, quite innocent compared to the mange of poor houses and hospitals. If I am to be governed by the legislation of sovereign sanculots, let it be of such butt cuts rather than the spur ends of creation.

Not counting the whites, twenty-five years will double our home-made negroes, and have exhausted more than half the land now in cultivation. Then it will be difficult for many masters to support their poor dependants. And in the lifetime of the child now born, it will be as difficult to get a ten acre patch, as a cotton plantation now. I have thought if providence ever designed that slavery in our country should become extinct, this crowding the country would be one of the two ways by which it is to be

brought about. In 50, or 100 years, masters may be moving them to Mexico, Central and South America to be relieved of the responsibility of maintaining them. Who now, in any of the countries of Europe or Asia, would, for their labor, take one hundred men, women and children, and be responsible for their support, as we are for our slaves? But how will the poor get homes, when land is scarce and labor so low? We all know that the slaveholder is able to, and does, seize all the best land now. It is much more important to have a home than a wild African.

Statesmanship looks to the future, as well as the present. But we would be injured as fast as the Africans could be introduced. The first effect would be to bring down the price of cotton. Some assert the paradox that increase in the supply does not effect the price of cotton, because, accidentally, and from extraneous causes, prices have sometimes ruled high on a large crop. But I do not know that we need lay the reason for it to accident, for a high price may rule when a large crop is coming forward, consistently with orthodox political economy. Cotton so large an article of commerce that the *effect* of supply may not, and I apprehend is not, felt under a year, or perhaps longer, after it is made. By the time the crop is being moved to the interior towns, then to the sea ports, then to Liverpool, then to the factories, then into the hands of those who give orders, then to the sea ports of the consuming world, then to the interior towns, and then, by the thousand rills of conveyance, to the retailers, and then finally, to the consumer, I apprehend, quite a year will have elapsed. But we have not computed all the time, for it will take some time for the retailer to know that the consumer is over supplied, by his refusing to buy, and this knowledge, which will make what is called the reaction, will take, perhaps, as long in travelling from the consumer to the gin house, as the cotton was in taking the track that I have so tediously gone through.

So the short crop of last year and year before, may now be sustaining the price of the present large crop, by furnishing the spinner with the orders now in Manchester. And on the other hand, by the time the present large crop shall have taken the route I have just indicated, and have reacted back on Manchester by a scarcity of orders, a short crop may be coming forward, for sale at low prices; because the spindles cannot go without orders, and the orders cannot be had because the consumer will be wearing goods made of the present large crop. Let no man flatter himself that the inexorable laws of political economy are different with cotton from any other article of consumption. So that increase of labor will bring increase of crop, and in the long run a reduction in price, as certainly as any cause in nature will bring its legitimate results. Hast thou found honey? eat so much as is sufficient for thee, lest thou be filled therewith, and vomit it. It is said of Alfianni, "that he thought Italy and England the only countries worth living in; the former because there nature vindicates her rights, and triumphs over the evils inflicted by government; the latter, because art conquers nature, and transforms a rude, ungenial land into a paradise of comfort and plenty." But in our slave States both these advantages are combined, and will improve if we will let well enough alone.

I have been hearing, for half a century, of the good time that was coming, but it never arrived till the year 1858. Abundant crops; cotton, and every thing that makes cotton high, and every thing else low; and the crowning advantage is the State has been during the year without barbecues, speeches, or elections. Can the man who calculates the eclipses tell us when such a year will come again? I have often thought of the application to our case of an anecdote I once heard from my friend Gen. H. He resided in the same town with Judge C., both of

whose doors, it would seem, had for years been "hammering places" for petty collecting agents and ministerial officers of the courts. Judge C., finally took refuge upon one of the islands on the coast by marrying a rich widow, who resided there. Coming to the town after the honeymoon, and meeting his old and persecuted friend, Gen. H—, and who looked as if he needed sacutuary, invited him to the island; telling him that he could read when he chose, sleep when he wished, hunt when he desired, and not a d—d constable on the island. Now, when my eyes have been swimming with pleasure at viewing the gushing abundance of our harvests, knowing their high value, and the general prosperity and health of our people, my heart has overflowed with gratitude; but when the crowning blessing of the year, that there was not a candidate in the country, if in the State, suggested itself, I have felt the unutterable joy of Judge C., at the absence of constables from his Eden. Now, Messrs. Editors, open the African slave trade, and there will be an end to this prosperity. The price of cotton, and of our slaves will come down, and the abundance of money which has kept our people's property off the sheriff's block will disappear and go to the Northern shipper for slaves. And, as an additional argument to the "sound men on the slavery question," the Northern people will receive immense benefit in having our cotton at four and five cents to make red handkerchiefs, to supply us with slaves for our hard dollars. The Northern shipper and manufacturer are aware of all this; for they are as sharp in discovering their interest as modern chivalry is, as to how and when the greatest amount of bullying can be enjoyed with the least possible risk of danger. But they are controled now by the "sound" anti-slavery men, who in their madness and folly are as incompetent to reason correctly on the subject as their prototypes of the South. They are wiser in their own conceit than seven men that can give a reason.

To a humane and Christian people it is pleasant to feel that slaves are humanely treated, for the greater their value the greater the security for the exercise of humanity. At their present prices is it economy to take good care of them, if other motives than humanity are wanting for their protection. But let them be reduced to one-fourth of their present value, and it is not to be feared that many owners would work one to death to buy two more?

Many men, North, have manfully stood by our rights, and I can well appreciate the difficulties they must have encountered in such a contest in supporting the right, in the face of these "sound" anti-slavery foes. But we cannot expect, if they have the African slave trade to shoulder, but that the camel's back will be broken. The advocacy of the African slave trade by the South will most certainly put the abolitionists into power in the Union, and if we have any friends there who can stand this test, why then we may try the eating ordeal; for then they can swallow that too, and live and conquer.

But, if the trade is to be opened, let it be done according to law. For, if the country is to be ruined let it be ruined according to law, and not give all the advantage to smugglers who will make immense fortunes at other men's expense. At the present prices of slaves, without great vigilance by land and water, they will be smuggled, in defiance of law. Open the trade at once fairly, so as to give us all a chance, or close it effectually. If fortunes are to be made, there is no reason why a preference should be allowed to law breakers.

Why, Messrs. Editors, if labor is so important now, might we not introduce coolies? I ask the question, because I do not feel sufficiently informed to answer it. But it seems to me that if the Spaniards, French and English find them profitable, we can make them so; for I would rely on the energy of Southern planters making more out

of any kind of labor than others have made or ever will make. And then, by the terms of contract, they could be returned to their own country, relieving us and our land, from the responsibility of supporting them and their posterity forever.

Well, now, gentlemen, to be done with niggers; for, like myself, I presume, you are as tired of the subject as John Randolph was of the tariff, when he said he would walk a mile to kick a sheep, let us have a little talk that concerns ourselves only. I know it has no connection with the rest of my communication, but if I do not out with it now, while I am down with my pen, I don't know when I shall have resolution to resume it again.

I have a complaint against you in this wise. Though it may be vanity in me to say so, who should not say it, yet with all becoming modesty I am compelled to vaunt my own virtue. I am proud to say, that I am not only an old fogey, but the oldest of old fogies, a hard-shell old fogey. I believe in the Bible, the Union, home made negroes, hanging murderers, shooting filibusters, in young folks dancing and old folks looking at them too; in egg-nogg, holly and mistletoe and old Santa Claus at Christmas times; and in a clean shaved face at all times. And gentlemen, before I was seduced and instigated by the devil to take the *Southern Cultivator*, I would have turned my back on no man for soundness on the fogey question. And, thank a fast anchor, I am yet sound enough to commiserate the fallen condition of young America; for I still know he is a fool whatever the puppy may think of me. But the sin of your *Cultivator* is that it has got me to suspect there is a sort of intermediate condition, a sort of purgatory, a lucid place between the "sound" slavery and the "sound" anti-slavery man, that it is worth a man's while to examine, to see if it is not only a habitable, but good country. Indeed, I fear I am falling from the grace of old fogeyism. It is a very perplexing, nay, painful condition. Like a man sick with a disease which permits him, occasionally, to be tantalized with the hope of recovery. Like the weak brother in the church who finds

himself, on trying occasions, yielding to the tempter. And what, perhaps, is more appropriate, like the lunatic with his lucid intervals? Have you never thought of the horror of such an existence as that of George the third, who lived through years of alternate spells of insanity and lucid intervals. How in those lucid intervals he must have suffered from apprehensions of a recurrence of his malady? Would it not be better, therefore, to be taken off by a stroke of lightning, than a lingering consumption? to fall into the arms of the devil at once, and enjoy all his gross sensualities in deep, hardened and oblivious vice, than to fight him at arm's length for years and be conquered at last? To sink into the permanent forgetfulness of continued insanity than be tortured with fitful lunacy? To give up at once to the pleasing delusions of book farming than to take it by paroxysms, subject to be rebuked by fogeyism in my lucid intervals? I once knew a rollicking young debauchee who very much hated a distant relation, and who every time he had committed an act that met his self-condemnation, would exclaim "that drop of D—— blood in my veins will hang me at last in spite of all I can do." Now, whenever, I attempt, unsuccessfully, some suggestion I see in your paper, old fogeyism exclaims that the *Cultivator* will ruin me in spite of all its admonitions. If the attempt seems to succeed, old fogey shakes his conservative head and says it is the nature of insanity to be pleased and captivated with the kink that has confused the poor muddled brain. And the cunning wizzard has so fascinated me, that I cannot break with it; for let me at the end of the year, resolve to save my peace and my dollar too, the result turns out as all reason does against inclination. And like the poor habitual drunkard who stands with eyes on the

rosy god and his hand in his pocket holding his last dime trying to reason his clutched fist to stay there, out will it come with the dime on the counter, with "d—— the odds, plenty of money and no heirs, give us a drink." And so, let old fogey reason as persuasively as he can, about book farming and my dollar, when the time comes round for the January number, and I see the contents noticed in the *Chronicle and Sentinel*, down goes the dollar for the *Cultivator* for another year. Thus, year by year, ever since its publication, have you robbed my pocket and crazed my head with your book farming. That is not all, for so great is its witchery that I can't resist the temptation to seize it first, out of the pile, when my post office bag is opened. So, if I am ruined by book farming, and life and my senses are spared me, you shall have one more letter from me, on *God's revenge against taking the Southern Cultivator*; in which I will give my own case as the text, and though you may not dread its severity, yet I think I will have my revenge when I tell you I will bore you with one as long as this. In accordance with what I have recommended to your correspondents in a former communication, I subscribe my own proper name.

GARNETT ANDREWS.

Washington, Ga., 1859.

NECESSITY OF MANURES.

WHILE soils remain covered by unbroken forests, they not only retain their fertility, but actually grow richer and richer from year to year, notwithstanding the vast amount of nutritive matter annually absorbed the roots of the growing trees. Everything thus taken from them is ultimately returned with interest. The leaves and broken twigs, and eventually the branches, trunk and roots, in their decay, give back not only what they receive from the soil, but much in addition, that they have elaborated from the atmosphere. We receive from the hands of nature no worn-out lands; but her system of tillage is very different from ours.

The productive power of soils subjected to cultivation is gradually exhausted by the process. Some of the alluvial lands of Virginia produced large annual crops of corn and tobacco for more than a century, without any return being made to them for the elements of fertility abstracted; but these lands are now nearly valueless. The secondary "bottoms" of the Sciota and Miami may not attain an apparently diminished fertility for a still longer period, but they must ultimately fail, and unless a system of cultivation radically different from that now pursued be adopted, become like the worn-out lands of some of the older portions of the country. Reliable statistical tables prove beyond a doubt that, notwithstanding our improved farm implements and superior methods of cultivation, the average yield, per acre of the cultivated lands of the State of New York, has decreased considerably since 1814, when the records on which these tables are founded were commenced. In corn the decrease was nearly four bushels per acre; in wheat nearly two bushels; and in potatoes, partly owing to the rot, no doubt, twenty-two and a half bushels. The falling off would have been still greater had not deeper tillage and better husbandry furnished a partial offset to the decreased fertility of the soil.

These are instructive facts, and should cause the farmer to pause and reflect.

The fruitfulness of a soil is decreased or increased according to inexorable laws. With each crop that is taken from a plot of ground a greater or less amount of each of the elements of fertility—silex, potash, lime, soda, magnesia, chlorine, etc.,—is necessarily removed. Another portion is lost in the process of cultivation independently of what is taken up by the plants. Continue this process

year after year, and what must be the result? Ultimate barrenness, of course. There is no remedy but to supply in the form of manures what is thus taken away. The farmer must feed the land which feeds him and so many others, or in the end all must starve together. In the older portions of our country at least, the time has come when the importance of manuring should be more fully appreciated.—*The Farm.*

The above article is timely, and contains truths oft repeated, and not sufficiently heeded by cultivators, but at the same time some of the inferences are erroneous. The opening of the article infers that soils in woods grow richer by the additions added to them from the decay of the current growth. This of course is true so far as additional organic matter, or that solidified from the atmosphere by the growing forest, as carbon, &c., is returned to the soil; but it is not true that any new portions of the more valuable inorganic matters are added. The greater cause of improvement is from the fact that the portions taken from the soil, and which would develop themselves as ashes if the woods were burned, *are progressed* or rendered capable of feeding a higher class of plants by each appropriation in organic life. The quality, and not the quantity, is improved, and it is for this reason mainly that old forest lands, when cleared, are found to be productive, and particularly when the forests are burned in place. In such case, all the alkalies and other inorganic constituents of the trees are not only restored to the soil in an improved condition for re-assimilation, but they also decompose the leaves and other organic matter in the soil, and thus cause them in turn to give up their progressed mineral constituents.

In the last paragraph the writer says: "With each crop that is taken from a plot of ground a greater or less amount of each of the elements of fertility—silex, potash, lime, soda, &c.,—is necessarily removed." Now all this is true, and particularly in shallow plowed soils, but the inference of the total removal of these inorganic constituents from the soil is certainly erroneous, as in most soils the same ingredients continue a depth of many feet, if not all the way to the earth's center. But unless the soil be deeply plowed, and for a considerable time, it is true that the *progressed portions*, or those which have occupied organic life before, may be removed so as to leave the unprogressed portions only, which cannot be assimilated by crops of a higher order, and hence the necessity for manures as well as for deep plowing, so that atmospheric and other influences may progress new quantities of the constituents of the soil so as to replace those removed by crops. Manures simply supply progressed constituents when placed in soils made up of un-progressed constituents, and thus supply the current wants of a crop until nature's laws can progress new quantities from the soils themselves. These processes go on most rapidly in under-drained and sub-soiled lands.—*Working Farmer.*

SOURCES AND QUALITIES OF HONEY.

EDITORS SOUTHERN CULTIVATOR.—One intelligent man, by promulgating a few errors over his own name, can do more harm to the cause of truth than all the old believers in death-watches and ear-wigs put together. For this reason, men should be cautious, and not essay to establish a great truth, until they are certain they can support their theories by sound philosophical reasoning. I have been led to this train of reflection from reading an article in the Dec. Number of the *Medical Journal*, "on the resources and qualities of honey, by Dr. Baker, of Eufaula, Alabama."

The Dr. sets out, as he intimates, "to combat the

erroneous, yet almost universal impression that bees "extract" honey from flowers, and that as some blossoms possess poisonous properties, the honey *extracted* from them must, of necessity, be more or less deleteriously impregnated." The article is intended as a partial reply to a short one of mine, written for the same Journal; and in which I assumed the position, that the notion that honey is ever poisonous, is nothing more nor less than a popular error—and I am of the same opinion still. In the examination of Dr. Baker's communication, I shall in the first place notice the first branch of the subject, viz.: the resources of honey, and that I may do the Dr. full justice I will quote all he says upon it:

"About the middle of June, 1850, I was at an old hunter's house, in South-Western Georgia, preparatory to starting with him on a deer drive. This man was a great lover and minute observer of Nature; in his yard there was a great number of bee-hives, and he sold the honey in large quantities to the neighboring villagers. While at his house, I heard him complaining that there was a honey famine—that the hives were all ready for its reception, but that they were utterly destitute of honey, and that the bees would soon starve. I asked him, how such could be the case, when it was then the middle of June, and the country full of flowers, and why the bees did not collect it? To my great surprise, he replied, that bees did not get honey from flowers, but that it "fell from the clouds." I was amused at the idea, but, of course, wholly sceptical concerning it. He, nevertheless, assured me of its correctness; and to my question, why did we always find bees at work upon flowers?—he answered that, they were gathering pollen, from which they made bee-bread for their young, and that they were also collecting materials for forming the honey-comb and arranging the cells, to convince me, he exhibited to me a hive, where, sure enough, existed the comb, cells, and all else, perfectly prepared, yet not a particle of new honey, and the old supply nearly exhausted. There was prevailing at the time a severe and protracted drought. Of course I had to believe what I saw, but was still an unbeliever as to the "honey falling from the clouds."

"The evening of the same day, we went fifteen miles into the wild woods, where our hunting party camped, far away from any dwelling. The Old Hunter and I slept under two beautiful young hickory trees, and at dawn the next morning he roused me up, exclaiming, with great enthusiasm, "the honey dew has fallen!—get up, you unbelieving Thomas, and see for yourself." Upon rising, the first thing that attracted my attention was the buzzing of bees, and on looking up to the top of the hickory trees, I saw myriads of them working, and coming and going; the limbs of the trees grew low to the ground, and upon its being pointed out, my astonished eyes beheld, for the first time, the "honey dew," on the leaves, and occasionally actually roping down and dropping from the pendant points of the smooth leaves; I tasted it frequently, and at once recognized the peculiar flavor of the common honey. I saw, and felt, and tasted it, and my mind was convinced by these means, which God had given, to lead it to correct conclusions."

I would not make the Dr. answerable for the errors of his friend, the old hunter; but I do assure him that bees *never* starve, so long as the weather will permit them to go out; of this fact, he can satisfy himself by a little consultation with his bee-keeping friends. The only instance in which I have known them to starve, occurred with me last year—I had two swarms to issue on the first of April. The weather continuing very fair for a few days they

worked on beautifully, but a sudden change to severe cold taking place, in consequence they could not leave their hives to procure nourishment, and I lost both.

Now the idea that the sole dependence of the honey bee is upon the honey dew, is pretty enough as a poetical thought, and may be true as far as the bird of paradise is concerned; but I am sure will not stand the touchstone of reason when you come to apply it the bee. That bees do gather from the honey dew has never been denied, but that they resort to this for their entire supply I do deny, and I will add, that the man who can establish the reverse will immortalise his name.

In regard to the point that bees visit flowers for the only purposes cited by the old hunter, the Dr. can again satisfy himself, in a very short time, that his old friend is in error. If he will take his stand at a peach tree, or any shrub producing flowers that bees approve, there he will see some of the bees leaving the tree laden with their cargo of pollen, carefully packed in the cavities of their thighs, while others, diligent workers, too, will leave with nothing visible. The question, then, is, what have these last carried home? If not pollen, the conclusion is irresistible that it was honey, the identical substance that humming birds, butterflies, and a thousand other insects gather from flowers; for, I presume, it will not be contended that they are gathering material for bee bread and honey-comb. Again, if the Dr. will confine a swarm of bees in a room, and supply them with syrup, made of sugar, they will thrive—another fact going to prove that honey dew is not the only substance that bees can live on. I have frequently saved my bees, when the winter has been very severe, by feeding them on this syrup. I might call the Dr.'s attention to the swarms of bees found about the sugar hogsheads, soda fountains, confectionaries, &c., in our cities, and ask him to account for their presence. Would he answer, in the language of the old hunter, that they were collecting materials for forming honey-comb? The Dr. must know that bees gather nothing but pollen and honey, the first is always placed in the cavities of the legs, and never taken in the stomach; it is the food of the larvæ, and does not enter into the composition of wax. Pure wax is always white, whereas pollen is of different colors. If the Dr. desires to see wax in its purity, let him examine a piece of comb just formed. When honey-comb is immersed in boiling water, to extract the wax, it is the pollen that imparts to it a yellow hue, but I repeat again, that bees do not use it in comb building. For full information on this and all kindred topics, I would refer him to Miner's work on the honey bee.

To make the question more interesting I propose to add a little more on the question of honey dew.

What is honey dew? I presume the Dr. is aware that there exists a great diversity among naturalists on this question. Dr. Good describes it as "peculiar haze or mist loaded with a poisonous miasm, that stimulates the hop to the morbid secretion of a saccharine and viscid juice"—Linneus ascribes the honey dew on the hop leaves to the caterpillar of the ghost moth, (*Heptia humuli*) attacking the roots—Dr. Withering was of the same opinion. Mr. John Murray ascribes it to an electric change in the air—"last Summer," he says, "we investigated the phenomenon with great care: the weather had been parched and sultry for some weeks previous, and the honey dew prevailed to such an extent, that the leaves of the currant, raspberry, &c., in the gardens literally distilled from their tips a clear limpid honey dew, excreted from the plant." Mr. Ducarne, a foreign naturalist, thus speaks: "You know what honey is, which the bees collect with so much ardor from flowers, but you do not, perhaps, know that there are two kinds; one, which is real honey, being a juice of the earth,

which proceeding from the plants by transpiration, collects at the bottom of the calyx of the flowers, and thickens afterwards; it is, in other words, a digested and refined sap in the tubes of plants—the other, which is called the honey dew, is an effect of air, or a species of gluey dew, which falls earlier or later, but in general a little before and during the dog days." "I have long adhered to the opinion," says Mr. Knight, that the honey dew deposited on the leaves of the trees, was only an exudation, &c." Miner, than whom a better aparian never lived, says: "It is my opinion that no honey dew ever existed that was not an exudation from the leaves of the tree." I coincide in opinion with the last mentioned author; and if Dr. Baker had allowed his skepticism to have abided with him a little longer, he might have satisfied himself there, on the ground, that if his old friend, the hunter, was not laboring under delusion, he could, at least, have found good reasons to suspect it. The Dr. had been informed by the old hunter, that honey dew "fell from the clouds." If the Dr. had examined the surrounding trees, the rocks and leaves on the earth, he would have seen no honey dew, a conclusive evidence that it did not fall, for if it had, its appearance would have been general. But the Dr. says: "The same evening we returned to his house, and at day light the next morning we went into the yard, and the smooth-leaved black gums presented the same appearance as did the hickories in the woods on the previous morning." I would inform the Dr. that honey dew invariably makes its appearance on trees of the smooth leaf kind; but whether it does or not, he may rest assured that bees will not refuse to use it let them find it where they will; therefore the old hunter gave incorrect information when he states that they will not gather from any other than smooth leaves.

I will call the Dr.'s attention to one important fact, and then leave the matter with him, and it is this: that honey gathered in regions where the white clover abounds is very different from that collected in the neighborhood of the buckwheat, the first being much whiter and of a purer quality than the last. We are also informed "that the Sicilian honey seems to be particularly high flavored, and, in some parts of the Island, even to surpass that of Minorca, which, no doubt, is owing to the quality of aromatic plants with which that country is overspread." All this must be either true or false, and that it is true the Dr. can be easily convinced if he desire; and then it will devolve upon him to prove that honey dew is not identical in all latitudes, failing to do which he must acknowledge that bees do gather honey from flowers.

On the second branch of the subject, viz: the qualities of honey, I shall have but little to say; while I regret that I cannot concur with Dr. Baker in his theory of the sources of honey, I cannot withhold the expression of the pride I feel in having the aid of one so intelligent as he in combatting the absurd notion that honey possesses poisonous properties. I am not one to make up an opinion upon, an "*it is said*" argument—I must have reasoning, facts, indubitable facts, before I can yield acquiescence, believing that "it is better when we are ignorant to say so, rather than to retard the progress of inquiry by inventing baseless hypotheses that explain nothing." I have said that I do not believe honey to be ever poisonous, because I have, and can find no proof that it is so; I have said that even admitting the nectar of some flowers to be poisonous, it does not follow that honey may be so, because the bee has too much sagacity to gather it. In this opinion I am sustained by Dr. Darwin, who says "that bees are well aware of the sorts of honey that would injure themselves and will not therefore touch it," though my friend, Dr. Campbell says, "the instinct of the bee may, in most instances, preserve him and his race from the toxic effects of the deleterious properties of flowers;

and yet, what has served as his *nutriment* may be, for man, a most destructive *poison*." It may be so; but as I am not physiologist enough to determine the question, I must be content with the remark, that it seems strange that that which nourishes a bee may destroy the life of a man!

"With respect to poisonous honey," says a writer, "the earliest notice of it we have met with is given by Xenophon who tells us that, during the memorable retreat of the ten thousand Greeks from Persia, the soldiers coming to a place near Trebizonde, where there was a great number of bee hives, sucked some of the combs, and in consequence became intoxicated, and were seized with virulent cholera morbus." The historian does not tell whether the whole, or what proportion of the ten thousand, were made intoxicated, if the whole, it establishes the fact, that honey is no drug in Persia, and if a part only, may they not have become sick from eating too much, as some men are apt to do when the *oyster* season commences? Or if "*old peach*" was in vogue in that day, I would believe, like Dr. Baker, that an undue quantity had been mixed with their honey.

In conclusion, I have to say that I think it more than likely that Dr. Baker is correct in his conclusions, that the causes of sickness from eating honey is to be traced to other sources than to the honey itself; and that if those who make the assertion would take more than a superficial view, perhaps they would be of his opinion. A glass of milk is quite an innocent thing, but a small quantity of strichnine or arsenic put in it would change its character, but that ought not to justify us in pronouncing milk poisonous; so if a person eat honey, and in so doing take with it a bee sting, or some other unwholesome thing, why should we speak of the deleterious effects of honey? especially when we know ten to eat of it without any injurious effects where one suffers. I could add much more to this, to me, interesting question, but am fearful of wearying the patience of the kind reader; hoping he will pardon my uninteresting style, I am

Respectfully,
V. LATASTE.

Augusta, Geo., Jan., 1859.

DANGER---AND HOW TO PREVENT IT.

EDITORS SOUTHERN CULTIVATOR.—There are many things, seemingly trivial, and hardly deserving the attention of the printer, that nevertheless, may be important to the farmer. I give you several of them, which you can either spread before the votaries of the plow, or consign to the receptacle of trash, as you think best.

1. Plowmen riding horses or mules with the gear on, not unfrequently are thrown down, and becoming entangled in the traces (sometimes used as stirrups) are dragged to death, even by gentle animals. The remedy, (which has saved the life of at least one plow hand on my farm) is, always to untie the hamestring before mounting

2. To protect against fire, let the little negroes be dressed in woolens throughout the winter, clothing them thus, before the field hands, and when fires are first needed in full. Impress on the minds of all, large and small, field and house servants, the importance of not running if they catch a-fire, otherwise nine-tenths will run. I often catechise them pleasantly, especially when they are clearing up, and burning brush &c., in the Spring, a time of danger, and the more so, as women, girls and small boys are usually detailed for that work; I proceed something after this fashion: What will you do if you catch a-fire? will you run? No, Sir. What then? I'll fall down and roll over and keep a rolling. Why? Because that is the best way to put out the fire until help comes, and running will make it burn faster. Is that all? No, Sir. If we lie down and roll over fast, we only get burnt a little on the legs, and perhaps not at all, but if we stand up, or

run, we may breathe the blaze, and they say that will kill, or get burnt all over, and that is certain death. Charley a boy of five or six years, had the lesson so well by heart, that he ran to the rescue of a blazing child of two years, threw it down and rolled so energetically, that when the frightened mother arrived, the blaze was extinguished and the child suffered from only a small blister or two. In short, this course, under Providence, has saved a large family for many years, from and serious burn.

3. What a vast number of recipes are found in print for scratches in horses. Only one is necessary, here it is. Pot one dram or so of Corrosive Sublimate (Chloride of Mercury), in about a gill of water, apply some of this to the diseased surface with a mop, rubbing the part with a cob, if not too tender; having first washed it with soap and water. One application generally cures. If Quinine is good for chill and fever, this is better for scratches. But it is a virulent poison, therefore take care of your bottle.

4. There is danger in giving copperas (sulphate of Iron) and salt (Chloride of Soda) to hogs *at the same time*, though both are good when given at different times. Should a hog eat *much* of the mixture, such a quantity of chlorine gas may be disengaged, by the play of chemical affinities, as to kill him. I have known hogs to die under circumstances that render this speculation plausible, and the caution justifiable.

A. RUSTIC, M. D.

SALT AND CORN.

EDITORS SOUTHERN CULTIVATOR.—It has been suggested to me that three tablespoonsfuls of salt put under each hill of corn will answer for manure. It is said the corn will have a small stalk and a large ear.

I want to try it this year; but before I commence I want to hear your opinion whether you think salt will make good manure or not. Yours respectfully, &c.,

J. T. E.

Twiggs Co., Ga., 1858.

REPLY TO THE ABOVE.—It is rarely that common salt is of much value when used alone as a manure. This results from the fact that all agricultural plants require some *fourteen* elementary substances for their growth, of which salt supplies only two—chlorine and sodium. Being very soluble in water, salt is sometimes rather more washed out of a soil than other fertilizers; so that its application to a hill of corn has precisely the effect that would follow the use of the best stable manure. We have used it a good deal on corn in the hill, but always in connection with wood ashes to supply potash, magnesia, sulphuric and phosphoric acids. Apply three tablespoonsfuls of salt, and as much good hard wood ashes, to the hill, such as will make lye for soap, and you will have a reasonable prospect of a satisfactory result. You may, however, fail from the lack of ammonia in the soil.

L.

STRANGE MORTALITY OF HOGS AND CATTLE.—A friend living in the neighborhood of Fort Browder, in Barbour county, Alabama, informs the Eufaula Express that he has within a few days lost some twenty head of cattle, by some unknown disease. They were in good condition, and would eat heartily even up to the moment of death—in fact, one cow was in the act of eating oats and dropped dead as suddenly as it had been shot. Several other planters in the same section have lost stock in the same way. No clue to the cause has as yet been discovered.

THE GUANO QUESTION.

EDITORS SOUTHERN CULTIVATOR—We are pleased to see that Dr. Lee, in the January number of the *Cultivator*, has sustained all that we have ever contended for on the subject of guano. We are only sorry that our article which he quotes, from the *Central Georgian*, should have been so badly printed as to make us say what we did not intend. One of these typographical errors, in justice to myself, I deem it important to correct: "The purchase of guano ten years hence," (not two as quoted,) we said "will be much smaller than now." This I wrote editorially in the *Georgian* twelve months ago, and reiterated it as correspondent in the article referred to by Dr. Lee. Nine more years will test the validity or fallacy of my prognostication.

We wish also to correct a mistake in point of fact which it seems we made. When we wrote the general impression everywhere among planter was, that the rust had ruined the cotton, and the guano would not pay. This, at one time, was the opinion of Mr. Daniel Dickson, Col. Turner, and Hon. T. J. Smith, who buy guano extensively. The fall, however, proved so favorable in every particular, that since gathering the crop they have changed their minds and so have we. But it is strange that in all the applications of guano, so few reliable experiments are made as to its real value as a fertiliser.

Our opinion is, that rich men who have abundance of lands to rest, may, by a judicious policy, make it pay longer than ten years and may continue to purchase it, but when we take a broad national view of the subject; when we look to husbandry, our population and renovating our lands, we consider the *guano question* as a great curse to the country. The truly philosophical axiom of *less land and more labor* is scouted as "tom foolery." The making and husbanding stock manures, the hauling in of muck and vegetable matters, to give basis to and recuperate worn out soils, is denounced by these guano farmers, as a one-horse system, and everything is on the stretch to make cotton out of the land as fast as possible by the stimulation of the Peruvian dust, which is equal, in the estimation of many, to that which comes by harder digging from California.

Let these guano farmers remember what Dr. Lee says in his article, and what we have, in effect, so frequently announced before, that "When, from the long use of Superphosphate of Lime or Guano, one has exhausted the potash and magnesia in his old fields, their sterility is far more hopeless and forbidding than it would have been had a wise system of tillage and husbandry been earlier adopted."

We do not wish to be misunderstood, as we have been misquoted more than once. We do not say there is no ready money in the purchase and application of guano. Practical men attest it after several years experience. All we have ever contended for is what Dr. Lee expresses in his article—that it will, after a series of years, exhaust the land of its most invaluable salts. If this be true, we say it is bad policy to use it so extensively. It will hasten the decrepitude of the South, delude our farmers into a neglect of home manure, permanently and almost hopelessly injure our soils, depreciate our population and transfer to Peru and the North nearly all the profits of the slave labor of the South. If this is not making money over the left, we know not what is.

E. M. PENDLETON.

Sparta, Ga., Jan., 1859

 A small piece of paper or linen, moistened with turpentine, and put into the wardrobe or drawers, for a single day, or three times a year, is a sufficient preservation against moths.

GUANO, &c.—CENTRAL RAILROAD.

SAVANNAH, Dec. 13th, 1858.

Transportation of Guano and other Manures, and of Lime and Salt, for Agricultural purposes.

Hereafter Guano and other Manures, and Lime and Salt, for agricultural purposes, will be transported to all points on the Central Road and Road to Eatonton, at two dollars per ton of 2000 lbs.; provided, at least 16,000 pounds (a car load) is offered at one time, for one consignee, to one station. Parties, to avail themselves of the advantage of this regulation, must give notice when they begin to send a lot of Manures, &c., of the quantity to be sent, and must satisfy the Superintendent that the Manures are not for sale, but strictly for planters' use, as this regulation is intended for the benefit of that class only.

G. W. ADAMS,
General Superintendent.

We invite special attention to the above notice, emanating from that prince of good fellows, and model Railroad Superintendent, George W. Adams. We hope other Railroads "will go and do likewise." The soil of Georgia, in many localities, impoverished by unskillful culture needs resuscitation. If our Railroads would put the rates of freight for manures at the lowest point which would pay expenses they would be doing a service to the planting interests of the State, which would be some compensation for the exclusive privileges which they enjoy.—*Atlanta Intelligencer.*

WHY USE CUT FEED?

An intelligent farmer asks for the philosophy of cutting hay. He can understand that it is useful to cut corn stalks and coarse fodder, because the cattle will eat them better. But when the cattle will eat good English hay perfectly clean, why should it be passed through the hay cutter?

Our friend evidently supposes that the stomach does its work upon everything that passes into it, with equal facility, and without any tax upon the rest of the system. This is manifestly an error. All food has to be ground up before it can be assimilated and pass into the circulation of the animal. If food is not artificially prepared by cutting, grinding, or steaming, the animal has to prepare it himself so far as he is able. Certain kinds of food will pass through the system, imparting to it only a part of their nutriment, because the teeth of the animal have not perfectly masticated it. Whole kernels of corn or of oats are often seen in the faeces of an old horse.

The more perfectly food can be prepared, the more completely will be the system appropriate its nutriment. If the whole labor of grinding up the food is thrown upon the animal, it is a serious tax upon the vital energy, which every good farmer wants for other purposes. In the case of the horse and ox, you want the strength applied to locomotion and draught.

Whatever strength is applied to grinding food, is so much taken away from their capacity for labor. If three or four hours of strong muscular labor are spent in working up hay and straw into a pulp, there is a great loss of strength and of time.

In the case of fattening animals, you want the aliment to go to the formation of fat and flesh. This process goes on successfully, just as the animal is kept quiet and comfortable. No useless labor should be expended in the grinding up of food. The straw-cutter, working up the hay into fragments of half an inch in length, or less, performs a good part of the working of the jaws, and makes the feeding of the animal a light matter. If the hay could be ground up into a fine meal, it would be still better; as it would make the work of the animal still lighter, and would more completely yield up its nutriment. If it

could be steamed it would be best of all, as it would then be wholly appropriated.

We have no doubt that it pays quite as well to pass hay through the machine, as the coarsest fodder. A root-cutter is also an indispensable adjunct to the barn, and the more perfectly it comminutes the roots the better.

The farmer who has ever experimented with these machines, and marked the results of feeding with hay and roots prepared in this way, can have no doubt of their utility. Laziness, we apprehend, has quite as much to do with these machines as ignorance. It is work to turn the crank to cut up hay enough to feed twenty head of cattle; and in prospect of spending the elbow grease, it is very convenient to believe that it will not pay. Sloth, however, is a poor counsellor in this case, as in all others. We should as soon think of feeding them with uncut straw. A warm stable and a straw-cutter are both good investments.—*Howard's Register.*

HUNGARIAN GRASS.

THE Hungarian Grass, very nearly resembles the common Millet and requires the same culture. It has gained great notoriety upon the Western prairies, where it appears much better adapted than to the ordinary farm lands of Kentucky and other States. It resists drought to an extraordinary degree, and upon the porous prairie lands it threatens to almost supersede timothy entirely. In other States in the Union, and even in its native country, the *Panicum Germanicum*, or Hungarian Grass, is not so highly appreciated.

The usual practice in the West, with this grass, is to secure both a crop of seed and a crop of hay at the same time, and the consequence is both are inferior. When seed is the object, a less quantity should be sown to the acre, say eight quarts, either broadcast, or what is better, drilled in. But for hay, not less than a half bushel of seed should be sown to the acre, and even three pecks would give more and finer hay. The ordinary quantity sown, however, is one-third of a bushel; this, on good land, will give from 20 to 30 bushels of seed, and from 2 to 3 tons, and even more, of hay to the acre.

The ground should be rich and well prepared. The proper season for sowing is from the middle of May to the Middle of June, [first of April in the South.—Eds.] but it may be sown as late as the last of June and produce a crop of hay. It may be sown on wheat or rye stubble, and will afford good fall pasture.

The proper time to cut the Millet for hay is when the blades begin to turn yellow, or when the seed is just passing out of the milky state. If allowed to fully ripen the seed, the hay is not so rich and nutritious, but while seed commands the high price that it has since it was first introduced, it has usually been allowed to become too ripe to make soft, sweet hay.—*Valley Farmer.*

YEARLY FOOD OF ONE MAN.—From the army and navy diet scales of France and England, which, of course, are based upon the recognized necessities of large numbers of men in active life, it is inferred that about two and one-fourth pounds, avoirdupois, of dry food per day, are required for each individual; of this, about three-fourths are vegetable and the rest animal. At the close of an entire year, the amount is upwards of eight hundred pounds. Enumerating under the title of water all the various drinks—coffee, tea, alcohol, wine, &c.—its estimated quantity about fifteen hundred pounds per annum. That for the air received by breathing may be taken at eight hundred pounds. The food, water, and air, therefore, which a man receives, amount in the aggregate to more than three thousand pounds a year; that is, to about a ton and a half, or more than twenty times his weight.

THE WEST---LAND FOR THE CHILDREN.

"The West, the Great West!" is now the prevailing cry. Arkansas, Texas, and Louisiana are the prominent and attractive points, whither emigration is tending. The plea for leaving old and tried and cherished homes for new ones, is, "I want to procure land for my children"—"I cannot bear to leave them a heritage of worn out and exhausted fields."

That in many portions of Middle and Upper Georgia, the lands present a very forbidding and discouraging aspect is very certain, but whose fault is this? Certainly not that of the soil or the climate. And will not western lands, however rich and productive, after a while, present the same cheerless aspect, under a similar system of wasteful and improvident husbandry?

But of what use will any lands be to children who are not taught practically and experimentally the lessons of intelligent and thrifty agriculture? So long as all lessons and habits of industry are virtually ignored or discarded, of what avail is a landed or any other heritage to children? Unless labor shall be dignified in the eyes of their children—unless they study the soil and take pride in developing and promoting its fertility—unless they shall cease to devolve everything upon overseers—often men without the intelligence or disposition to practice thrifty and skillful husbandry—how can they hope long to do better in a new country than they have done in the old?

The great misfortune is, that we have too much land—too much for good neighborhoods, and schools and social advantages. It takes but comparatively a small tract of land to meet the actual wants of a family. We say then to those who have pleasant homes in the old States, do not desert them hastily. Take the Southern Cultivator, Southern Planter, and other valuable Agricultural Journals. Study the profession of farming. If you have surplus slaves, sell them to good masters, and put the proceeds into railroad or other stocks, or have improvements and comforts. This is our advice, which may go for what it is worth.—*Macon Journal & Messenger.*

THE BEST DOCTOR FOR ANIMALS.

We have seen a great deal of doctoring for sick animals—some successful, and a great deal of it unsuccessful—and we have long since come to the conclusion that the most skillful physician we have ever met with is Doctor Nurse. If an animal, (as well as human being) is not carefully taken care of—nursed—all the medicine in the world can do but little good. And, on the other hand, with good nursing, medicine is generally unnecessary. Our own observations lead to the opinion that in at least nine cases out of ten, as commonly administered, medicine does more harm than good.

An eminent New York physician said that taking medicine was always a choice of evils—that being poisons in nearly all instances they necessarily did harm to the system, and were never to be employed unless there was a strong probability that they would benefit more than injure. This is not the rule adopted in doctoring horses, by most horse jockies and others having care of these animals, if we might judge from the way in which gunpowder, salts, red pepper, turpentine, whiskey, corrosive sublimate, and other violent remedies, are administered at haphazard, increasing, in nearly all cases, the violence of the disease. It may be laid down as a general rule, that it is much safer to give too little than too much medicine; and that none should be given unless we know distinctly how it is to operate and what it is for.

Some years ago, a valuable horse caught cold, and was troubled with a cough so severe that he might be heard half a mile, and which appeared to be rapidly reducing his flesh. We had an abundance of prescriptions from neighbors of all frightful medicines, enough to have killed

him had he been in perfect health. We concluded to discard all, and to place him under the attention of Dr. Nurse. Great care was taken never to work him to perspiration—he was blanketed whenever the weather was chilly—he was fed regularly and moderately on succulent food, all such food partaking of the character of expectorants, and favoring a free discharge from the lungs—and all his other wants were observed as well as we able to, and promptly supplied. In six weeks he was perfectly well. Had some nostrum been employed, it might have injured him and prevented recovery; or if it had not, Dr. Nurse might not have been called in; but if he had, and the medicine had not greatly retarded his recovery, and he had got well in six months, it would have been regarded as an extraordinary cure.

At another time, a valuable mare, eleven years old, was badly sweenied by hard work—the worst case of sweeny we ever met with. It was generally regarded as a hopeless case—but various remedies were proposed and offered, costing from \$20 down to \$3. We concluded that our friend, Dr. Nurse, should be again called, to the exclusion of all these fellows, and the consequence is that, with simply careful, moderate treatment, the animal is well and the sweeny filled up.

The majority of sick horses get well; every owner tries some remedy; and that particular medicine that he happened to be using at the time, gets all the credit—although, as a general thing, it retarded, more or less, his recovery.

We must make one exception in the general rejection of medicines—there is one which, if given moderately, can scarcely ever injure, and may often do much good. This is powdered charcoal—a powerful antiseptic and absorbent of bad matter, while, unlike most other medicines, it does not irritate—a most important advantage. A clear illustration of this advantage recently occurred in the case of a fine calf, five months old, which had become bloated by eating too many apples, blown down by a violent gale. Its sides became distended by wind to an almost incredible size; a solution of saleratus was poured down its throat repeatedly, and as often thrown out violently on account of its irritating action on the throat of the young animal. It continued for eighteen hours with little or no improvement, when a large tablespoonful of powdered charcoal, mixed with half a pint of water was given. The dose was swallowed without any difficulty, and in four hours the calf appeared to be perfectly well. Charcoal may be given in nearly all cases of derangement of the digestion, whether with men or beasts, with great advantage. One-half to a teaspoonful is a full dose for a man, and as much more for an animal, as its food exceeds that of a man.

We do not mean to say there are not other medicines that occasionally prove eminently useful; but unless they can be given understandingly—with a full comprehension of their mode of action, and with an undoubted knowledge of the exact nature of the disease—and their use sanctioned by very clear and distinct previous success—it would be much safer to discard them.—*Country Gentleman.*

USE OF SALT IN AGRICULTURE.

The beneficial effects of salt in agriculture have long been known and its application practised by many of the best farmers in this country and in Europe. Mr. John Johnston, of Geneva, New York, has regularly applied it to his wheat land for many years, and with the most beneficial results. Besides imparting a strength and vigor to the plant that insures a largely increased yield, it forces the plant to maturity several days earlier than wheat on similar land, not treated with salt.

The precise action of salt as a manure has been a ques-

tion of some interest to agriculturists. Mr. A. B. Northcote has communicated to the London Philosophical Magazine, a paper detailing some experiments he has undertaken, to ascertain the *rationale* of the action of salt in increasing the fertility of certain lands. We have not space to give in full the experiments as conducted by Mr. N., but we give his conclusions:—He says; the results, then, at which we must arrive are, that agricultural salt is a most energetic absorbent of ammonia, both in virtue of its chloride of sodium and of its soluble lime-salt, and that the proportion of the latter, especially, most powerfully affects its action; but that, at the same time, its agency does not seem to be altogether a permanent one; it will collect the ammonia, but it is questionable whether it can retain it for any great length of time, because in the very decompositions which happen, in order to render the ammonia more stable, salts are formed which have a direct tendency to liberate ammonia from its more fixed combinations. It may, however retain it quite long enough for agricultural purposes, if the young plants are there ready to receive it. Its state of gradual liberation may be for them the most advantageous possible; and to this conclusion, all experiments on the larger scale appear most obviously to tend. It is described as an excellent check to the too forcing power of guano; and from Mr. Barral's experiment we see that it either prevents the too rapid cremacausis of the latter, or stores up the ammonia as it is formed.

As manure for growing crops, all experience and all theoretical considerations, therefore, show it to be most valuable; but when employed to mix with manure heaps which have to stand for considerable periods of time, theory would pronounce, as practice has in many cases done, that its power of retaining ammonia, under those circumstances, is at best doubtful.—*Valley Farmer.*

AN IMPROVED BREED OF MEN.

An experienced stock-raiser who will notice carefully the build and general appearance of the human beings he meets in the streets of a large town during half an hour's walk, or at a county fair, if he will notice them as he would other animals, with reference to their healthiness, working ability, soundness of wind and limb, speed, strength, or even their capacity for fattening, will soon come to the conclusion that there is a strong necessity for some movement to be made for the improvement of the breed. Other kinds of stock may profit by the importation of other breeds from abroad, and this process is going on very extensively among us at the present time; but when we reflect that for all the uses of life our own native blood is, perhaps, the very best known, we must come to the conclusion that foreign importations will not do all, and our experiments can be most profitably directed to the better management of that.

There is, indeed, great room for human stock managers, to wit: the fathers of families throughout the land, to improve in their way of operating. It won't do to begin by killing off the puny ones—for however good and permanent an effect such an operation might have, there are objections to it in a moral point of view. The next best thing might be to forbid ministers from marrying mean looking men; but, as ministers might not always possess sound judgment in such matters, the only thing left us is to labor the improvement of the race as it is. We want a race of tall, broad-shouldered, thin-flanked, clean-limbed, clear-eyed, sinewy, firm-muscled men, with women to match, and in order to get it we must use a little of the same common-sense that we employ in the management of the inferior orders of animals.

As we said above, the points that we attend to first with regard to them, cannot be brought into consideration here, but the particulars of cleanliness, food, proper shelter, ex-

ercise, amount of labor, &c., &c., can be arranged with the greatest perfection. If all men would join in, study the laws of their own health, and do their best to inaugurate an improved way of managing our breed of men, we think the results could not fail to be of the happiest kind.

—*Wool Grower.*

COTTON SEED.

We find among our scraps, laid aside for future attention, one from a Cincinnati paper, on the subject of cotton seed oil, which is represented as a very valuable illuminating and lubricating substance. We have no doubt of this, and there is only one consideration in the way of the manufacture of cotton seed oil becoming a lucrative business—that is, the value of the raw material. The experiment of manufacturing cotton seed oil was tried, or a pretty liberal scale, more than twenty years ago, near Natchez, but it came to nothing; no doubt from the difficulty of procuring the seed at a suitable price.

Northern men, who have a notion of embarking in this business, would do well to come South and look about them before they risk their capital. Should they make the trip, they will discover first, that cotton seed is, with us, no inconsiderable succedaneum to that boasted hay crop of the North, and jolly fat our cattle get around the cotton seed pile in the winter. In the spring it is applied directly and indirectly as manure, and we have seen gardens in the black lands absolutely white with the seed lying on the surface after as much had been plowed in as the earth would hold. This great amount of vegetable matter worked into the substance of the limy soil prevented it from baking and becoming too hard to work or to permit the transpiration of the moisture below. At other times we have seen corn cut down by a late spring frost in one field, but preserved in the adjoining one by the warmth developed from the fermentation of the cotton seed which had been applied liberally.

We have now in our mind's eye a plantation, some two hundred miles away, on which the thirty-second crop, unless we miss the count by a year too much or a year too little, is now growing, and the oldest cleared portion is the best, although it lies less favorably than some other parts. The reason is that being nearest to the gin house it gets rather more than its share of the cotton seed manure.

Indirectly, too, cotton seed is extensively applied as manure, not only through the medium of the cattle fed upon it, but from the way in which the cotton crop is planted. We do not dole out the seeds three or four in a place, as if each were a grain of bread corn, but throw them in liberally, till a ridge of seeds extends from one end of the field to the other. This furrow is covered, and in due course of time is alive with young cotton plants, which are chopped out until not one in a hundred remains, nor does one seed in a dozen get a chance to germinate; they are smothered, and so rot in the ground. Thus the seed of one crop manures the next one.

No, indeed; Southern planters are charged with being thrifless by those who not know the difference between Southern and Northern agriculture; but you will not catch them selling their cow feed and manure to Northern manufacturers to make oil. And here is one explanation of the agricultural prosperity of the South. It is the process of ripening the seed which chiefly exhausts the soil, and the country which exports breadstuffs, or meat, must become impoverished unless recourse be had to manures imported or dug from the beds of marl and gypsum with which Providence has supplied it. Our corn is consumed among ourselves; our great export is the light carbonaceous substance of the downy cotton, derived from the atmosphere, while the phosphatic and nitrogenous ingredients of the seed are returned to the soil. Careless hus-

bandry will wear out any soil, but land can endure more under cotton culture than under any other that can be named.—*Mobile Mercury.*

For the Southern Cultivator.

OUR BOBBY---ASLEEP.

The cows have come home from the cotton-field pasture,

The colts are at rest, and the calves are all dumb,

Aunt Rosey has given the app'e he asked her,

And Bobby's asleep as sound as a drum!

From the earliest neigh of Dan Phoebus his courier,
Till the last weary team from its yoke was unloosed—
He's run with the wagon and ridden the horse,
And now he has gone with the chickens to roost!

And sweet be the dreams of his manly young spirit,
When beautiful sleep on his eyelids shall rest,
Till the hands that have wrought for the bliss they inherit,
Shall be folded for aye, on an innocent breast!

No poet may scribble his deeds into story!
No column arise with the sound of his name,
But the works of his hands shall be better than glory,
And the worth of his heart shall be brighter than fame.

T

Torch Hill, Ga., 1858.

NUMBER OF SQUARES IN AN ACRE.

THE following table is convenient for reference when desiring to know the number of trees or plants which will occupy an acre when set out at given distances apart. It will also assist in determining the amount of manure to be applied to a hill, when distributing a certain number of pounds or loads upon an acre. An acre contains 43,560 square feet. It is usually better to keep this number in mind, and at once obtain the number of squares by dividing this sum (43,560) by the number of feet inclosed by four hills.

| Distance apart No. sqrs. each way. | or hills. | Distance apart No. sqrs. each way. | or hills |
|---------------------------------------|-----------|---------------------------------------|----------|
| 1 foot..... | 43,560 | 12 feet..... | 302 |
| 1 1-2 feet..... | 19,360 | 15 " | 193 |
| 2 " | 10,890 | 18 " | 134 |
| 2 1-2 " | 6,969 | 20 " | 108 |
| 3 " | 4,840 | 22 " | 90 |
| 3 1-3 " | 3,535 | 25 " | 69 |
| 4 " | 2,722 | 30 " | 48 |
| 5 " | 1,742 | 35 " | 35 |
| 6 " | 1,210 | 40 " | 27 |
| 8 " | 680 | 45 " | 21 |
| 10 " | 435 | 50 " | 17 |

If the rows are three feet apart each way, there will be 3 times 3 feet, or 9 feet in each square, and 43,560 divided by gives 4840 squares, trees, or hills. If the rows be 2 feet apart one way and 3 feet the other, the enclosed space will be 2 times 3, or 6 feet. 43,560 divided by 6, gives 7260 as the number of squares. In rows 3 by 3 1-2 feet there are 10 1-2 feet. 43,560 divided by 10 1-2, gives 4148 squares; and so for other distances.

This table would not be quite accurate if allowance be made for rows around the entire outside, as in that case there would be one more row each way than the number of squares. Thus, in a square plot of one acre, with the rows 3 feet apart each way, there would be, say 59 rows each way. As two of the corner trees would count both ways, we must add to the 1840 hills, (in the table,) 4 times 69 hills, less 2, or 274, making the total number 5114 These figures are illustrative only, and not exact, as the precise number of rows in the instance given is a little over 69 1-2.—*American Agriculturist.*

NEW AND CHEAP FOOD FOR BEES.

It is stated in the London *Gardener's Chronicle* that a correspondent of that paper has long been in the habit of supplying the London shops with fresh honey in the comb all the year round. In the hardest winter his supply was equal to the finest summer. How he succeeded in this was a mystery. It finally came to light that he fed his bees, in the absence of flowers, on a solution of the oil cake made from the seeds of the *Bene Plant* (*Sesamum Orientale*.) Indeed he would boast that he wanted no flowers for his bees.

The *Sesamum orientale*, or *Bene* is cultivated in various parts of the world, both as food and for oil. The oil remains sweet for a long time, and is sometimes used as a substitute for sweet oil. In China and Cochin China it is used as a substitute for butter in preparing the various dishes. It is cultivated to a considerable extent in several of the Southern States. It is sown in drills about four feet apart, in the month of April, and the seeds are gathered in September; it yields a large proportion of oil which is expressed in the same way as linseed oil. It grows much like cotton, from three to six feet high, and bears numerous square seed pods, about an inch and a half long. The leaves of the plant have long been used as a remedy for the dysentery, and cholera infantum or summer complaint of children. For this purpose the freshly gathered leaves are placed in a tumbler of cold water, which immediately becomesropy, without losing its transparency, or acquiring any unpleasant taste, and is readily and even gratefully taken by the little sufferers, and in such cases is used as a substitute for other drinks.

The *Sesamum* is indeed a valuable plant if cultivated alone for its medicinal and domestic uses, if not for its oil, which last, however, under proper management, would prove a profitable product where the climate favors its perfect maturity, which perhaps would not be North of the 38th or 39th degrees of latitude.—The *Sesamum* cake is extensively used in France for manure, and is most valuable for all growing crops.

Should the *Sesamum* prove as valuable for bees, as the statements seem to claim for it, it would warrant the importation of the oil cake from England and France for that purpose.—But we would advise some experiments for this purpose before much expense was incurred in that way.

The *Flore des Serres* relates the discovery of the value of the cake for feeding bees from the following circumstances: "Two bee-masters in a village in the department of the Var, in the south of France, were in the habit of wintering their hives in the forests of Mandelieu. When uncovering the hives the apiarians perceived about noon, on the 4th of May, 1856, that their bees were out and yet the hives were full, and of extraordinary weight for the time of the year. Surprised at the circumstance and wondering what the bees could be at, they remained on the watch till evening. About 6 o'clock the bees began to return, loaded with an incredible quantity of the richest plunder; so heavy, indeed, were their burthens that the least experienced observer could not have failed to notice it. Astonished at such an event, the bee-masters proceeded to examine the fields and mountains in the neighborhood, but in vain; they discovered nothing in the country around them at all different from preceding years. At last they crossed a field in which the oil-cake, resulting from the pressure of *Sesamum* seed was being prepared for putting into the ground with potato sets, as is the custom in that country, where *Sesamum* cake is much valued as manure.

The cakes had been steeped in a pit of water till they were reduced to a state of liquid plaster for it is thus that cakes are used with most success at Mandelieu. "Oho!" said the farmer who was planting the potatoes, on seeing

the apiarians, " You are come to see how we make bee-soup. Look there, every day for some time past, we have been overrun with your swarms, and they feast famously; they take their fill, I assure you." On returning to the same place next morning, the mountaineers were convinced of the truth of what the farmer had said, for there were the bees in prodigious numbers, buzzing about the tub and feasting on the *Sesamum* cake which it contained.

The bee-masters from Mandelieu took the hint. They immediately placed near their hives some large tubs, filled with *Sesamum* cake, dissolved in water to the consistence of pap. The bees no longer wandered from home; the tubs were kept regularly filled with "soup," as the farmers called it, and the bees stayed at home. The food has since been given in winter with perfect success, only if the weather is frosty, it is necessary to use warm water, in order to keep the *Sesamum* cake soluble. The results have been astonishing, not only in a large increase of honey comb, but in enabling the bees to increase beyond all belief, nearly ten times the quantity being bred in consequence of the facility afforded of obtaining abundant, and as it would seem excellent nourishment from this unexpected source.

It is an easy matter for some of our Southern bee-fanciers where the plant is grown to make an experiment, and see whether there is any exaggeration in this French statement. We know that the French are a visionary people, always making some grand discovery in nature—but as this statement is given with so much clearness, it seems to bear upon its face the semblance of truth, and as we can see no room for them to be deceived, nor any motive in them to deceive others, we think the facts should be proven by experiment.—*Valley Farmer*.

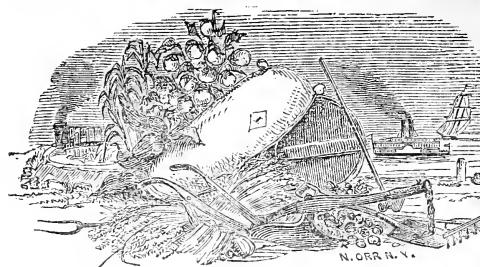
CULTIVATION OF THE PEA-NUT.

A correspondent, of Yolo County, who has a practical experience in the cultivation of the pea-nut, submits to the readers of the *Union* the following considerations in connection with the raising of this product:

Many readers of your paper wish information as the cultivation of the pea-nut. I will say, first, that it requires light, sandy soil, such as will best produce watermelons and sweet potatoes, and yet I am persuaded that the pea-nut can be raised on soil so dry that it will not produce either melons or potatoes. Too damp or irrigated land will not do, as the pea will (as many of us in California have done) overshoot itself. The time to plant is from the 1st to the 10th of April. The way to plant it is to break your ground with a harrow, to a level, then open your drills four feet apart and about one or one and one-half inches deep. The pea has to be broken, and two kernels dropped in the drill, twenty-four inches apart, and covered, as above stated, one to one and one-half inches deep. After they come up, the vine spreads out on the ground, much like the red clover. When six or eight inches long, they commence to blossom, when the vine between the rows is taken and the vine and blossoms are covered about one inch deep, leaving the ends clear. This is the first working. And again, when they have grown out again with plenty of blossoms, cover as before, until the 1st of August, which will make two or three workings. There is no use in covering after the 1st of August, as the pea will not mature.

Now for the gathering. I generally commence the 1st of October. Get all the ends of the vines in each hill in your hands, and pull them up gently, and you will bring nine-tenths of the peas; turn them over, with the peas to the sun, until sufficiently dry to gather—say six to eight days—when, of course, they will be gathered and sacked.

—*Sacramento Times*.



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., No. 3. MARCH, 1859.

EARLY ISSUE.—In order to manage the cover, and mail our paper so that it will reach distant subscribers seasonably, we shall, hereafter, be obliged to go to press by the 10th or 15th of the month previous to that for which our paper is dated. For instance, the *March* number is put to press the 10th of February, &c. Correspondents and advertizers will, therefore, be kind enough to send their favors in early.

☞ “THE FARMER & PLANTER,” comes to us in a new dress, and otherwise greatly improved, from Columbia, S. C. WM. SUMMER, Esq., Horticultural Editor; R. M. STOKES, Publisher. \$1 per year, in advance. Address the publisher, as above.

ANSWERS TO CORRESPONDENTS.

“YOUNG AMERICA” CRUSHER.—C. H. M. D.—It is probable you can obtain one of these machines in Columbia, S. C. See remarks on page 48, February number.

THE “SIMON PURE” RAREY.—W. C. K.—We believe John S. Rarey to be the great Horse Tamer, *par excellence*. The others are lesser lights.

GRAFTING THE GRAPE—H. L. B.—Common splice grafting succeeds very well, but the plug system, which follows, is more certain: Remove the earth, and cut the old root off, say two inches below the ground, by a horizontal cut; then take a gimlet just the size of the graft or scion to be inserted, and bore from one to three or four holes, according to the size of the root, and insert the scions, first removing the loose bark. The holes should be two or three inches in depth, and the scions should fit accurately. Replace the earth over the root and around the scions, and the work is done.

COTTON CULTURE.—E. T. E.—“*The Cotton Planter’s Manual*,” by J. A. Turner, will give you the information you desire. The book may be obtained per mail for \$1.25. Address A. O. Moore & Co., 140 Fulton St., New York. We would cheerfully comply with your request; but, at present, we cannot spare the space that the articles would occupy.

COOKING VEGETABLES, &c.—B. R. S.—We will endeavor to comply with your request soon.

SEEDS TO LA.—R. G. L.—The seeds your desire might be sent per Express, but the freight is high. Can you not supply yourself in New Orleans?

AYLESBURY DUCKS—GARDENING, &c.—Mrs. Dr. H.—You can probably obtain the Ducks from Maj. Thomas Daniel, Atlanta, Ga. “Gardening for the South,” is the book you need. It can be obtained at \$1.25 per mail from Wm. N. White, Esq., Athens, Ga.

CHAPPED AND ROUGH HANDS.—P.—All who work in the earth, planting trees, seeds &c., are apt to have very rough hands. To remove the roughness, wash your hands every night after coming in from the field or garden with castile soap and soft water—dry them thoroughly, and anoint them all over with a few drops of *Glycerine*. It acts like magic, and will make the roughest hands as soft as a kid glove. The inodorous *Glycerine* is the most agreeable.

STOCK RAISING IN THE SOUTH.—H. J. S.—Your article has been unavoidably deferred. Will appear in April number.

SORGHO SYRUP, &c.—J. D. H.—See Olcott’s work, “Sorgho and Imphee.” We have often heretofore published the information you desire.

CONDENSED CORRESPONDENCE.

CHEAP LANDS IN ALABAMA.—A subscriber, writing from the neighborhood of Valhermoso Springs, Morgan County, Alabama, says:

You are perhaps not aware that large bodies of good land may be obtained here at low rates; such lands as will make from 6 to 10 barrels of Corn, and from 1000 to 1500 pounds of Cotton per acre. On the mountain plateau dividing North from South Alabama, (from 60 to 80 miles across,) soil dark sandy loam, and which contains superior smaller bodies of black land in the bottoms, land may yet be entered at 12 1-2 cents per acre. This is in my opinion one of the finest countries for stock farms in the South. The fruit crop never fails there. Do send us some of your thinking Georgia Farmers to give the natives here some lessons in Agriculture.

WEAVING—MENDENHALL’S LOOM, &c.—Editors *Southern Cultivator*.—Inclosed you will find one dollar, to pay my subscription to the *Cultivator* for ‘59. I wish to call your attention to the advertisement of Mendenhall’s new and improved Hand Loom; you have doubtless seen it in operation and can tell whether it fully comes up to his advertisement. You will recollect, he says it can be operated by a girl of fifteen years of age, and will weave easily, from 25 to 30 yds. per day, with more facility and ease than 8 yards can be woven on the old fashioned Loom. He also says it is of the simplest construction, the largest occupying a space of 4 1-2 by 6 feet, and can be kept in perfect order with the least imaginable care. Easily operated, requiring but two motions of the hand, with the lay or batton to throw the shuttle, operate the harness, take up the cloth and let off the web. Lastly, so arranged that eight different kinds of goods can be woven on the same web, and the alterations required to produce any desired fabric can be made in a few minutes. My better half, having some knowledge of cloth making, flatly contradicts this last clause of the advertisement, and says it cannot be done. Now I should be glad to know whether this Loom will come fully up to the letter of the advertisement, what the cost in Augusta, and what delivered in Mobile?

Yours, &c.,

J. T. C.

[N. B.] One more question about the Loom, Messrs. Editors, and I am done, can any person who knows how to weave at all, can weave the different kinds of cloth mentioned in the advertisement, on the new Loom, without some one to instruct them?

[We must refer our subscriber to some of our readers who have used this Loom. Would it not be well for those

interested in the sale of this and similar machines, to keep them more fully before the public? We do not know the address of the Agent of these Looms, or any person who makes or sells them.—Eus J.

GIN GEARING &c.—I see a communication signed T. in No. XI, (1858) page 337, in which he states that he has seen a sixty saw gin propelled by friction. Will you do me and probably others the favor to request him to give us a description of that gin gearing through the *Cultivator*—size of horizontal wheel and handwheel, and how much is “a sufficient enlargement of the shaft to secure ample contact” or in other words, how large should the shaft be made at the place where it rolls on the horizontal wheel.

J. D. B.

Richmond, Arkansas, 1859.

WHO'S GOT A CAMEL FOR SALE?—Will our friend, “R.” of Mobile, reply to the inquiry of our subscriber?

EDITORS SOUTHERN CULTIVATOR.—In your January Number, page 29, I notice an article from H. C. Wayne, Maj., U. S. Army, descriptive of the Camel, amounting to a recommendation of the animal, for Agricultural purposes. I want one of the “critters,” and must beg you to tell me how I can get one, transported or shipped to Macon, Geo. Allow me to hope that you may find a leisure moment, and devote that time, to me, informing me how I can have a Camel delivered at Macon!

Yours enquiringly,

G. W. T.

Forsyth, Geo., 1859.

MEASURING CORN.—In your January No. p. 10, is a rule for measuring corn in the bulk which I conceive to be incorrect, at all events I cannot apply it; as for instance what is the number of barrels in a room of 20 feet length, 15 width, and 9 depth, according to rule?

Yours Respectfully,

W. C. K.

[Will some of our readers who are “good hands at figures,” answer the above?

DISTEMPER IN HORSES.—Take a piece of Indigo the size of a Lady's thumb; tie it up in a cloth, reduce it to a powder, put it into a bucket of water, and rub out enough to color the water—and let the Horse drink it. Let him have no water except the Indigo water, he will be well in two or three days.

R. B. P.

POLL EVIL IN HORSES.—I have bought a horse that has the Poll Evil. The Gentleman says he has had it for four or five months; you or some of your numerous correspondents will please give a receipt to cure it. I came from Georgia, and left all of the back numbers of the *Cultivator* or I have no doubt but I could find a receipt in some of them.

C. W. A.

Shreveport La., 1859.

[A correspondent of the *Cultivator* (Vol. 13, for 1855, page 271,) says of a Horse affected with the Poll Evil: “I made a large plaster of white lead and put it on; in some 6 days it dropped off itself, and all the time I owned him it never returned.” YOUTT recommends the passage of a seton through the tumor. (See YOUTT & SKINNER, page 157.) And Dr. DADD, (“Modern Horse Doctor” p. 363,) recommends that the sore be dressed and injected with

Spirits of Turpentine,
Pyroligneous Acid
Linseed Oil. } Equal parts.

“So soon as the parts show a disposition to heal, dress with tincture of aloes and myrrh.” We shall be glad, also, to hear from our correspondents who have had experience with this disease.—Eps.]

THE CAMEL, AND “CUFFY.”—A medico-agricultural correspondent, writes us from Mobile, under date of January, 10th:

“In HCC's Travels in Tartary, you will find a very interesting article on the Camel, and I should like to see the claims of that valuable animal more strenuously urged. They are certain to succeed in the South. Dr. Lee has conclusively proved that we need more laborers and cheaper ones, it is equally true that we want more and cheaper draught animals. Let ‘Cuffy’ come and his appropriate co-laborers the Camel. However people may differ about the negro, nobody can be offended by the importation and breeding of the camel, so let us have the Camels right off, and then defy the world to prevent our getting as many of the wool bearing bipeds as we may need.”

R. G. J.

AN APPRECIATIVE SUBSCRIBER.—Enclosed you will find one dollar for my subscription to the *Cultivator*. I think it a most valuable publication, and if your price were ten times the amount, I would not hesitate to pay it. I am trying to get up a club for you amongst my old foggy neighbors and hope to be successful.

G.

Morgan Co., Ala., Jan. 1859.

TOO DIFFIDENT.—A correspondent of the *Cultivator*, who always writes for us well and to the point, says:

“I am so anxious that the *Cultivator* should flourish and do all the good to farmers it is capable of doing, that I continue to write, though with great misgivings as to my capabilities. If you publish, correct errors. The enlargement, the matter, and the new dress of the *Cultivator*, are all admirable. Why don't all tillers of the soil take it? Surely they would, if they could see and read it.”

OUR BOOK TABLE.

AN ARGUMENT AGAINST THE POLICY OF RE-OPENING THE AFRICAN SLAVE TRADE. By ROBERT G. HARPER, Esq. Atlanta, Ga Printed by C. R. HANLEITER.

The above is a pamphlet of seventy-eight well filled pages, devoted to the discussion of a subject of great practical importance, not only to all the Southern States, but to the entire confederacy and the commercial world. Mr. HARPER has evidently felt the dignity of his theme, and brought to its elucidation much patient research, close observation, and sound logic; and, therefore, his “Argument” is every way entitled to the most respectful consideration. The perusal of this pamphlet has reminded us constantly of the writings of MR. JEFFERSON, JOHN RANDOLPH, and other eminent men, whose clear and vigorous intellects have been so far absorbed in considering the evils of negro slavery as it exists in the South, that they have singularly failed to do justice to its growing advantages. RANDOLPH said “the time will come when masters will run away from their slaves;” and Mr. H seeks to delay that dreaded state of things as long as possible. On page 84 he says: “We have now in the Southern States about three and a half million of slaves. If the trade from Africa was re-opened, how long would it be before that number would be doubled? In western

especially, if it assum's a morbed character. He adds:

Africa, which contains a population of forty or fifty millions, slaves are sold at two or three pounds a head. The supply which that entire country would furnish is incalculable and inexhaustible."

Now, a man who saw clearly that there are over six hundred million acres of land in the Southern States, and that a slave population of twenty million could not properly cultivate one-fourth of it, would have no objection to the addition of three and a half millions more except on the ground that it would augment the evils of the institution. Its *benefits* are apparently unseen—nothing good can possibly come from an increase of an intrinsically *bad* thing.

This idea is shown in a foot note on page 49 as follows: "Professor TUCKER estimates that the slave population of the United States, from natural increase, according to the ratio of its past multiplication, will, be in 1920, about 41,000,000. If this be true, there will be negroes enough at that time for our posterity, *and more, I fear, than they can safely manage.* And but three score years lie between that period and the present."

The United States Census for 1850 shows in its appendix, page 88, that the white population of the South increased in the preceding ten years at the rate of 34.32 per cent; while the increase of the slave population was 28.87 per cent. These official figures show that, from the immigration of white persons into the South from Europe and the free States, the increase of whites is 5.45 per cent greater than the increase of slaves. These figures refer solely to the ratio of increase. The positive increase of white laborers over slave laborers is nearly two to one, simply because the number of whites to breed from already in the South, added to the number of immigrants, forms a double power of reproduction as compared with that of slaves. In 1850, the white population of the South was 6,222,418. The slave population was 3,204,051. Facts prove that the power of free labor increases about twice as fast at the South as that of slave labor; and they have led the writer to *fear*, not that there will be too many negroes in sixty years, but relatively, so few in number, and these in so few hands, that voting nonslaveholders will easily send them out of all the States where slavery now exists. Hence, the writer has shown from time to time, that slaveholders act unwisely when they join the anti-slavery sentiment of England and the Northern States in opposing an increase of the power and wealth of the South, by an increase of that productive labor which experience has shown to be so effective in its influence on the commercial and manufacturing industry of both Europe and the United States.

In the Patent Office Report for 1849, we have shown beyond dispute, that free agricultural labor has damaged the soil of New York to the amount of more than one hundred million dollars; but we should be ashamed to ascribe this injury to the abolition of slavery there some 45 years ago. In Georgia, long arated fields have been impoverished by simiar agencies—not because slaves held the plows, but because the owners of the land saw fit to do as they have done. Now, many farmers are do-

ing better in New York; and so are slaveholders in Georgia. Give the latter a constant increase of knowledge, cheap mules and cheap negroes, and all will yet come out right.

L.

TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY, for the year 1858. From EBEN. WIGHT, Corresponding Secretary.

This volume contains: Reports of the Committees on Gardens, Flowers, Fruits, Vegetables, &c., and remarks on the culture of the Gladiolus, Japan Lily, Rose, Aster, Gloxinia, Achimenes, Native Plants, Strawberries, Cherries, Raspberries, Currants, Blackberries, Peaches, Plums, Grapes, Gooseberries, Apples, Pears, &c., &c. The transactions of this most useful Society are always full of interest, and we do not remember any previous issue more so than the present. We are under obligations to Dr. WIGHT, for the copy before us.

THE TEXAS ALMANAC, for 1859. With Statistics, Historical and Biographical Sketches, &c., relating to Texas. W. & D. RICHARDSON, Galveston, Texas.

This Almanac forms a thick pamphlet of over 200 pages, containing the following articles pertaining to Agriculture: The Wheat Region of Texas; Agriculture in Texas; Corn and Cotton Crops in Texas; Corn, Cotton and Sugar, etc.; Staple Crops on the Brazos bottom Lands; General Hints for every month in the year; Sheep Raising in Texas—several articles; Chinese Sugar Care; Sea Island Cotton; &c., &c. Also a new Map of Texas, and a great amount of Statistical, Historical and Biographical information; sketches of the early settlement of the country, &c. We believe the cost of this Almanac is \$1 per mail, and every Texan should have it. Address: W. & D. RICHARDSON, Galveston, Texas.

THE AMERICAN BEE KEEPER'S MANUAL; being a Practical Treatise on the History and Domestic Economy of the Honey Bee, &c., &c. By T. B. MINER, Fourth Edition.

The work of Mr. MINER, (which has been more fully noticed heretofore,) has long been a standard of reference on all matters connected with Bee management, and may be considered almost indispensable to all apiculturists. It can be had per mail for \$1.00. Address A. O. MOORE & Co., 140 Fulton St., New York.

REPORT OF THE COMMISSIONER OF PATENTS FOR THE YEAR 1857. Agriculture.

The volume on Agriculture for the year 1857, contains a number of interesting papers upon the progress of Agriculture in Russia, Prussia, and the United States; some valuable reports on Domestic Animals, and other general information for Agriculturists. An agent has been employed by the Department for the purpose of visiting the Tea districts of China, for the purpose of collecting the seeds of the tea shrub and other plants with a view of introducing their cultivation into the United States. Investigations into the quantitative analysis of the Cotton plant, and the soils in which it grows, are being made by an able chemist, and also in reference to the amount of alcohol and saccharine matter in the Chinese Sugar Cane, and the nutritive properties of the Yam, the Potato, Chufa,

and Indian Corn. Considerable attention has been devoted to the native Grapes for the manufacture of wine. Within the United States there are forty well defined botanical species, including upward of one hundred varieties of grapes, perhaps half of which are susceptible of being converted into wholesome wine. The cuttings of Sugar Cane imported from Demerara promise to largely compensate for the trouble. More than one hundred bushels of Sugar Cane seed from France have been distributed for cultivation, and sufficient returns have been made to prove that it will be valuable for feeding stock and other economical uses. The cultivation of the Chinese Yam has been quite successful, so also has Barley from Tuscany, and Wheat from the Mediterranean. The Commissioner is of opinion that the success which has attended the experiment of disseminating new and useful seeds, cuttings, &c., and the collection and promulgation of facts connected with the history, progress and economy of the principal Agricultural staples, fully warrant the expenditure which has been made for those purposes.

The report may be obtained from your Representatives in Congress.

DOWNING'S "FRUITS" &C.—CORRECTION.

A pomological friend at the North writes us :

"In your notice of a little work styled '*The Garden*' (August, number, 1858, p 249,) you say, 'we are glad to find that Southern fruits are not overlooked &c., and this is the first instance of the kind we recollect to have noticed in any Northern publication, etc. You certainly must have forgotten, or else not read the revised edition of Downing's '*Fruits and Fruit trees*,' where twice or three times the number of Southern fruits are described that there is in '*The Garden*.'

[We are obliged to our friend for correcting us in this matter, and cheerfully make the *amende*. A portion of the notice alluded to was copied from one of our Mobile exchanges, and adopted without sufficient reflection. We have always held the labors of the Downing brothers in the highest respect, and would not willingly do their admirable work the slightest injustice. We are glad to notice the great amount of information on Southern Fruits which the revised edition contains, and commend it to all American fruit growers, as the standard authority.—Eds.]

RE-OPENING THE SLAVE TRADE.

THE writer has no wish to enter upon the discussion of the re-opening of the slave trade in the South with foreign countries; but as two correspondents have referred to it, and as it deeply concerns Southern agriculture, we think it not amiss to answer Mr. MILLER's questions in the December number of the *Cultivator*. He says: "If I understand Dr. LEE aright, he is in favor of re-opening the African Slave Trade, that additional labor may be obtained in the Southern States for the purpose of reclaiming our exhausted lands. I beg respectfully to ask Dr. LEE if we have any warrant that the labor so obtained would be devoted to that purpose? Would it not rather be employed in cutting down and wearing out more land? If I was convinced that the labor obtained by re-opening the slave trade would be employed to improve our worn-

out old fields, I would go heart and hand with its advocates."

In answer to the above, we remark that we are *not* in favor of re-opening the slave trade as it has ever existed between Africa and America; and at the same time we are free to say that we do not know any source better able to supply a part of the labor required at the South than Africa. The French government not long since appointed an able commission to investigate the matter of supplying laborers to Algeria, and other colonies belonging to France. After a thorough examination of all the facts, it was decided best to continue the slave trade in its modified form. The latest accounts from Paris inform us that a contract has been signed between the Marine Department and a firm at Marseilles to supply Guadaloupe and Martinique with 20,000 free Africans suited for agricultural labor before the 1st of January, 1863, and that similar contracts have been entered into with other houses, which Prince Napoleon, as Minister of the Colonies, is resolved to avail himself of.

Dr. LIVINGSTON, Mr. BOWEN and others who have been in the interior of Africa have thrown much light on the State of society in different parts of that immense continent. The natural and normal state of the inhabitants is that of servitude of the many to few masters of their own color, language and tribes. The extensive valley of the Niger is so well adapted to cotton by climate and soil, that the plant is indigenous, and over 1200 bales of lint were collected, pressed, and sent to Manchester in 1857. It is the policy of the English government to encourage the cultivation of this staple everywhere in Africa, and especially in the populous and fertile valley of the Niger. The writer has seen a letter from one of the party sent to explore the country who says that slaves are bought and sold there at from one to ten pounds a head; or in our money from five to fifty dollars.

Emigrants from Great Britain and the United States going there to raise cotton will have the protection of a British consul, and, if need be, of British guns, and can obtain any amount of rich land for nothing, and healthy, able-bodied negroes to work it at ten, or twenty dollars a head. There must be some unknown cause of failure, or cotton culture will soon be carried on very largely and profitably in a region quite as well adapted to the business as the lower valley of the Mississippi.

Let us suppose that good mules three, four, five and six years old, could be bought in Africa for five dollars a head, and delivered in South Carolina, Georgia, Alabama and Mississippi to planters at fifty dollars each. Would our friend in the last named State require any "warrant," or bond that these mules should not be used to wear out the soil of the States named before he would permit one to be purchased or sold? A mule does quite as much damage to the soil while pulling at one end of the plow, as the negro does while holding the other end. Both are property—both are wealth-creating powers in the hands of owners having common sense. Why, then, permit free trade in one and not in both? Only one truthful answer can be given to this question; and that is this: Public Opin-

ion now regards the buying and selling of mules as *right and proper*; while it regards the buying and selling of negroes as *wrong and improper*. If it is right to hold persons as slaves in Africa and America at all, then it cannot be worse to transport slaves from the Niger to Savannah than from the Potomac to Savannah for sale, as is now done. Every slaveholder who opposes free trade in slaves as *property*, strikes a deadlier blow against the institution than any abolitionist possibly can strike; for he has the object of his attack entirely within his reach.

Let us carefully analyse this problem a little farther. It will not be denied that a large majority of Southern voters own no slaves; and that, under our republican system, a poor man's vote counts just as much as the vote of a man who is worth a million, and holds a thousand slaves. A large majority of these non-slaveholders are friendly to the institution, and would be glad to buy a few negroes from Africa to lighten the labor of their own hands. Free trade in this kind of Southern property would enable them to become slaveholders.

But to allow them to import slaves as freely as cattle are imported from England, might interfere a little with slaveholding as a close monopoly; and, therefore, this right to purchase negro laborers where they can be had on the best terms is denied them. What, now, are these non-slaveholding voters to do to obtain their rights in this matter? Clearly, one of two things: Either to carry out the principle of free trade in slaves in spite of the hostility of the very selfish monopolists, by using their power at the ballot box for that purpose; or join the anti-slavery sentiment of the free States, and invite the monopolists to emigrate with their "peculiar institution" out of the republic. It cannot be wise and proper for one-fourth of the citizens of any State to hold slaves, and at the same time unwise and improper for the other three-fourths to do likewise. If to add ten thousand more slaves to those already in Mississippi would injure the State by "wearing out more land" as is suggested by Mr. MILLER; then the removal of a like number of those already there, to Central America or Africa, will lesson by so much the damage now done to its virgin soil. Our esteemed correspondent must see that this argument against free trade in slaves proves quite too much. Slaveholders have unwittingly done the institution great harm by asserting that, if an attempt is made to cultivate one-fifth of the five hundred million acres of wild land in the South by a corresponding addition of slave labor, it will inflict on the planting States a great and lasting injury. When the owner of a tree deliberately affirms that it bears such poisonous fruit as to be dangerous to all that come near its shade, and that to increase this fruit will be fatal to the whole neighborhood, his statement, *if true*, proves conclusively that such a tree ought to be cut down and extirpated root and branch. If the tree of slavery bears such fruit, then slaveholders are right in preventing, if they can, the bringing of another seed from Africa; but if the fruit is such as really sells high in Southern markets, then let all have a seed to plant and cultivate who desire it. To drop the figure, the people of the South appear to us as having made up their minds to

have one of two things; either all the benefits of free trade in slaves, or all the benefits of free labor *without* slaves. This alone will dispose of every thing like monopoly in Southern labor. With free trade in slave labor, every man can buy according to his means, or not buy at all, if he prefers. With free labor and no slavery, all will then stand on an equality to prosecute whatever business shall be thought most profitable. But a system that talks turkey for one man's dinner, and talks buzzard for another man's dinner is not quite the system to suit the party expected to dine on buzzard. Non-slaveholders have, or easily can have, a plenty of land to cultivate; and what they most need is cheap and reliable labor. This is their turkey which is not yet caught. They can neither buy nor hire negroes at a fair price, and, therefore, they are compelled to look to Africa, or Europe, for laborers. Their system of farming and farm economy will be less commercial than that of cotton growers, and, consequently, less injurious to the land. They will naturally keep more stock, make and apply more manure; and thus improve rather than impoverish the soil of the South.

The State of Georgia now contains about thirty million acres of wild land; and the handful of negroes (some 400,000) within its empire dimensions, only stand in the way of its proper cultivation. Increase their number to a million, and then the industrial force of the State would do for a beginning. The single county in New York from which the writer came, produced in 1849, 350,000 bushels of wheat more than was raised in all the "Empire State of the South." With labor suited to the work, Georgia might easily grow twenty million bushels of wheat a year on less than one-thirtieth part of her territory. We are willing to allow twenty million acres for wilderness, in which to rear up wild hogs, wild cattle and wild children, and think that ought to satisfy anything short of total wildness.

L

TREATMENT OF ASTHMA.—A writer in the Boston *Medical Journal* describes what he has found to be an efficacious remedy for the asthma, the administering of the hydrate of potassa. Employed in five-grain doses three times a day, the effect is immediate and marked. The administration of it is soon followed by a slight expectoration of the viscid mucus, attended with an amelioration of all the most urgent symptoms. In hay asthma—caused by certain perfumes, vapors, &c.—this remedy produces the same relief. The writer adds: "That hydrate of potassa possesses a specific influence upon the air passages I think is undoubted, and I am prepared to learn that it will be found one of our most efficacious remedies in 'pseudo-membranous' croup, to disengage the false membrane after the inflammatory action has been reduced."

All subscriptions to the *Southern Cultivator* commences with the January number.

Rise early to your business, learn good things and oblige good men; these are three things you shall never repent.

Horticultural Department.

GRAPES AND GRAPERIES.

THERE is no fruit-bearing plant, adapted to temperate climates, at once so available and useful as the grape; and now that cultivators seem to be settling down to a unanimity of opinion with regard to the culture of both foreign and native varieties, it may safely be predicted that the grape is to take the first rank among American fruits.

The recent valuable additions to our list of hardy and native kinds, has given an impetus to their cultivation, and awakened an interest in the production of seedlings of further excellence, leaving little room to doubt that we will at no distant day, possess varieties equal to the best of any climate, and produce abundant crops with as much success and facility as we Indian corn.

The first requisite in grape culture is a sufficient depth of porous soil. A free percolation of water through the soil is indispensable. Mere richness of soil is only of secondary importance, no amount of surface manuring will secure profitable crops on a retentive sub-soil.

A sandy loam is the most suitable, although proper draining and trenching will render even clayey loams adapted for their profitable growth. The soil should be broken up at least 18 inches in depth, so that the roots may ramify in a medium somewhat exempt from external influences, and ensure a uniform healthy growth from the opening buds to the ripening of the crop. Having thus prepared the soil we would commend the following general routine of management. Procure plants not more than one year from the cutting, prune them down to a couple of eyes when planted. The treatment during the first season will consist in simply securing them to their supporting trellis. In winter prune down according to vigor; if the canes have grown to 10 or 12 feet, prune down to about half of that length. Most of the buds will produce a fruiting shoot; allow not more than two bunches on each shoot. Tying up to the trellis is all that will be necessary until the period for winter pruning arrives. During August and September, it may be necessary to dust the vines with sulphur in order to prevent or check the spread of mildew. The great secret in growing is to preserve the foliage healthy and unimpaired until the crop is gathered.

Let the winter pruning be directed to the securance of young growths; the renewal system of pruning best encourages the growth of young strong shoots, which invariably produce the best fruit.

There is no danger of the plants overbearing, if pruned understandingly during winter, and "let alone most severely" during the period of growth. Summer pinching and pruning weakens and retards growth, and diminishes the foliage necessary to ripen the fruit.

GRAPERIES.—Glass houses for exotic grapes are now built for reasonable prices, and their culture is extending accordingly. Here again the requisites of a properly prepared soil are paramount. A free, sandy loam is the best for a basis; if manures are applied let them be well decomposed and thoroughly incorporated. Bone dust and charcoal may be freely mixed with the soil, but these latter are not indispensable. Neither is it necessary to make an extensive border at the outset. A border 6 or 8 feet wide and 2 1-2 or 3 feet in depth, will afford a sufficient nourishing medium for a number of years: and additions can be made from time to time as circumstances seem to indicate its requirement. This gradual addition to a border is preferable to making it larger at first, as in the latter many of the principal advantages of a good border are lost before it is reached by the roots.

In choosing plants, select young healthy stocks; one year from the cutting is preferable to older—plants; cut

them down at planting to a couple of eyes, and when they push into growth disbud all shoots but the strongest. Let them grow at will; do not remove a healthy leaf or twig until growth is completed for the season. If the plants have done moderately well they will have grown from 15 to 25 feet. In November prune down to 8 or 10 feet lengths. This much for the first season. The second year's growth will show a portion of fruit; leave but one bunch to a shoot. If any of the shoots indicate an exuberance of growth over the others, check it by pinching out the point, but only equalize growth; the more foliage the better the crop. Do not be deterred from taking a slight crop the second year by any fear of destroying the future health of the plant. To form rich composts for borders, and stimulate, and pinch and prune and cut back a grape vine for 4 or 5 years before allowing it to fruit, is a waste of time and means, altogether unjustifiable, and no one having the slightest pretensions to culture would find it profitable to do so. Those who are less fortunate, or less skillful than their neighbors, sometimes find it convenient to make a virtue of necessity, by decrying the results which they cannot attain. It is only the ordinary practice of good gardeners to fruit grapes the second year after planting, and continue fruiting each succeeding year without fear of losing a crop or weakening their plants.

The growth during the third and following years, requires the same general treatment. The greater the amount of foliage, provided it is under the influence of light, the healthier the plant and the greater the crop which it will mature. Close pruning during summer is more frequently the cause of badly colored grapes, than all others combined.

W.M. SAUNDERS.
[in *Horticulturist*.]

ANGELICA.*

EDITORS SOUTHERN CULTIVATOR.—The term "angelica," used in California, took me by surprise. I think it must mean the choicest "must," or first pressed, or drawn juice of the grape—if one gallon of it produces, as it is stated, fifteen pints of wine, to obtain this quantity there must, of necessity, be something added to it. The true meaning of the word cannot be ascertained without applying to the editors of the *Southern Vineyard*, of Los Angeles county, California.

Later accounts from California continue to give reports of sundry vineyards. At one vineyard they have made this season 38,600 gallons of white wine, and 8000 gallons of red—the latter to be converted into brandy.

The largest vineyard is said to contain 58,000 vines. Generally, the vineyards are young, and have not come to full bearing. In most of the vintages, angelica is mentioned as a part of the product. From all accounts it may be inferred that California, taking climate into consideration, is to take the lead in wine making. It would be desirable that experiments should be made with some of the most approved vines from California. We need to make experiments with different varieties to ascertain which are best suited to our climate, and, indeed, almost every locality has its peculiar favorite—the Constantia wine can only be produced within a limited compass on the table lands of the Cape of Good-Hope. P.

*You have it angelica; the California papers have it angelica. See February number of the *South rn Cultivator*.

Tobacco leaves put around the body of peach trees, just beneath the surface of ground, are recommended as a preventive of the borer.

THE NEW GRAPES.

Mr. CHAS. DOWNING gives the following character to the new grapes:

Delaware.—Longest tested. Not a delicate grower, as some represent. Fruit sugary, aromatic, refreshing. Never cloys, and is of the highest quality.

Diana.—One of the most vigorous growers. Begins to color and is very good to eat almost as early as the Delaware, but does not hasten to maturity as that kind does.

Herbemont.—Needs protection in winter, and will not ripen its fruit north of New York, as a rule. It gives abundant crops of delicious, spicy fruit, the berries of which are bags of wine.

Anna.—First fruited while A. J. Downing was living. Flavor reminds one of the Muscat of Alexandria. It grows much like the Catawba, and seems to resist mildew better than any except Delaware. Berries large, much like Catawba, peculiarly dotted and covered with bloom. Color, greenish white, sometimes light amber. Less acid than the Catawba. Ripens as early as the Isabella.

Rebecca.—Any one who tastes it will be unwilling to do without it. Mildews a little, but not more than the Isabella. Requires but time to rank as the "American Chasselas."

Hartford Prolific.—Very hardy, and ripens earlier than any grape in his collection. Not as good in quality as Isabella. Berries drop from the bunch as soon as ripe.

Union Village.—Not fully tested.

York Madeira.—Hardy, productive. "Pretty good." A few days earlier than Isabella.

Hyde's Eliza, Canby's August and Baldwin's Early.—All probably same as York Madeira.

Clara.—Excellent so far, but not fully tested.—*Horticulturist*.

GRAPES AND WINE.—At a late meeting of the N. Y. Farmer's Club, Dr. Gallagher exhibited some wine from the native grape of the vicinity of Washington, N. C., and some also from the Mish grape, supposed to be a Scuppernong stock, grafted with the Butters grape. Though there was a great deal of saccharine matter in the grape, sugar had been added in the manufacture. Prof. Mapes remarked that the fermentation of the fermentation of the sugar of grape makes brandy, while the fermentation of the cane sugar makes rum. Brandy decomposes animal matter, rum preserves it.—The older a wine becomes, to which sugar has been added, the worse it is; the older the wine which has no sugar added, the better its flavor. Old rum has higher flavor than new, brandy loses flavor with age. Hence, the French when they put up fine wines of fleeting flavor add brandy, not sugar, after it has passed the period of fermentation. He had been making what they called "wines" from fruit, from rhubarb, &c., to which he added sugar. They certainly were very pleasant, but the trouble was that they would not stay what he made them; as fast as the fusil oil separates, they become runny. It was easy to increase and change the flavor of fruits, especially of grapes. The experiment of mixing a drop of fusil oil with a drop of different acids was familiar, and the production thereby of the flavors of different fruits. Now, when he saw that the union of tannic acid and fusil oil gave the strawberries flavor, it was easy to believe that dressing the strawberry bed with tan-bark would improve the flavor of strawberries—especially when it was remembered that the wild wood strawberry, where the fallen leaves and decaying bark of trees furnished an abundant supply of tannic acid, had a finer flavor than any cultiva-

ted berry. But the finest flavored grapes did not produce the finest flavored wines, for the reason that they contained too much fusil oil. This topic was one of immense interest to fruit-growers, and experiments were already being freely tried. There were 800 kinds of pears now in existence which were unknown when he came on the stand, and he felt sure that the palate was only just beginning to enjoy the pleasures in store for it, and which chemistry and the horticulturists were fast developing.

YELLOW JUNE AND SHOCKLEY APPLES.

EDITORS SOUTHERN CULTIVATOR—Your correspondent "Windsor" wishes to know if any one can inform him whether the Yellow June Apple is of Southern origin—There is in this County, (Macon, Ala.) about four miles from Tuskegee, a tree bearing very fine Yellow June Apples. Said tree was found growing in an Indian's yard when this country was first settled by the whites; and from it I distributed cuttings somewhat extensively, a few years since—Dr. W. O. Baldwin, wrote Mr. Van Buren, requesting him to name the Apple, and the latter gentleman called it "Nantehalee"—an Indian word which, I believe, means "Maidens Bosom."

With regard to the Romanite or Shockley Apple, besides its close resemblance to the Holley, Maj. Richardson of Cave Spring, Geo., sent it to this county under the name of "Spitzenburg," and a gentleman from Harris County, Georgia, brought a load of Apples which he called the "Sugar Crab" to Tuskegee, which would pass anywhere for Shockleys. The load of Sugar Crabs however would have averaged twice as large as any lot of Shockleys I have seen.

Yours &c.

J. L. MOULTRIE.

Union Springs, Ala., Jan., 1859.

GRAPE VINE--PRUNING, &c.

We copy the following remarks from the *California Culturist*, and endorse the leading ideas as equally applicable to our own climate :

The proper season for pruning the vine, with a view of securing its fruitfulness, is now at hand; and pruning can be continued at convenience, till just previous to that season in early spring, when the vines on being cut, "bleed," or throw off their juices from the newly cut wood. Cutting-in, as injudiciously practiced by some, is usually performed "when the fruit is swelling;" with this process then we have, at this season of the year, nothing to do but record our protest against the practice, based upon our own personal experience for years, as well in the western States as in California; and this experience endorsed by the oldest vine cultivars of this State, and in a section that produces the largest and best grapes that have ever yet appeared in the market of San Francisco.

All cultivators of the vine admit the necessity of an annual pruning. It is this that gives to the cultivated vine a productiveness over the uncultivated "wild grape vines indigenous to our mountain gulches and ravines;" for it is a well known fact, that such wild vines, subjected to a proper winter pruning are rendered fruitful, and this without any after cutting-in or "shortening" of the fruit bearing branches, at the season of the swelling of the fruit. The proper mode then, of pruning the vine to secure fruitfulness, as well as a vigorous, healthy growth, is one of the first importance to the vine grower. Every day's experience is teaching the observant California grape culturist the utter fallacy and error of being unchangedly wedded to the old system of pruning, or of supposing that because entirely applicable to other countries, the same must necessarily be here. Men of but one idea, naturally hold to the one already acquired, no mat-

ter how erroneous, rather than give place to an improved one.

When, therefore, we have a practice recommended as essential to the growth and productiveness of the vine in Europe, as equally befitting our climate, though in direct variance with our own experience, we shall always advance and propagate our own opinions, even at the risk of their being called "new."

First, then, we are entirely opposed to the system of close pruning, so rigidly adhered to, even in this country of heat and sunshine, by most of our culturists with European experience. This class of culturists grow grapes here, and often very good grapes, but seldom equaling those grown under a less rigid system of pruning. In this view of the subject, the result of our own direct experience again, we are not alone; and it is gratifying to know that our opinions, however much they may differ from those who remain true to ancient usage, are nevertheless corroborated by those of far more extended experience than our own.

The Hon. A. G. Semmes, of Florida, an amateur culturist of foreign grapes, says: "I train my vines on trellis from seven to eight feet high—of wire—but cannot follow the rigid system of pruning recommended in European culture, and practiced at the North. We have to so train our vines, that not a ray of sunshine ever touches the fruit; otherwise, the fruit loses much of its fine flavor, and is altogether robbed of its bloom, which, if it does not preserve its flavor, at least adds to its beauty." On another occasion he says: "The close pruning for out door culture, adopted in Europe, and the Eastern States particularly, will not answer for this climate. The reason is very obvious. On account of the heat and duration of our summers, a vine here under proper culture, will, in twelve months, grow as much as a vine in England will in four years." And we believe this remark as applicable to California as Florida.—After a vine has become established—say after the first fruit year—if healthy, it should be pruned back not exceeding one-half, and oftentimes not more than one third, of that year's growth, unless it be the smaller lateral shoots. This will secure a sufficient foliage to protect the fruit from the rays of the sun; for unlike other fruit, it is all-important that the grape be *entirely shaded* at every stage of its growth and maturity; otherwise, if it escape the rot, it will be small, hard and insipid. The natural shade and protection of the fruit is the foliage, and the more luxuriant this is, the greater certainty of fruit of large size and rich flavor. After several years' experience with some five hundred vines, I have never known an instance in which these suggestions did not prove true, both in regard to the native and foreign varieties; especially the latter, on account of their thin skin and great delicacy."

J. Fiske Allen, in his late treatise on the culture of the grape, says: "It is the established opinion, in vineyard culture, that the best fruit is produced when the vine receives the most sun; not upon the fruit, but upon the foliage." This fact alone, would mark California as being one of the finest grape growing countries in the world, a suitable soil and proper culture alone remaining to demonstrate its truthfulness. Experiment has proven the former to be all that could be desired, leaving proper culture the only matter upon which a doubt can rest; and this can only be resolved by years of practical experience.

We have introduced the foregoing, touching upon the culture of the grape in Florida, believing that the climate of that State is more nearly similar to ours, than that of any other section of the Atlantic States, if we except Texas.

We will now take the vine at two year's growth from the seed or bud, and one year from the ordinary cutting. In the following autumn or winter, cut all back

to three well developed buds. From this time onward year by year, the pruning and trimming will depend upon the mode—for there are many—to be adopted, and the fancy of the culturist; but as California bids fair to become largely grape producing, counting here acres of vineyards by thousands, we shall in the present article speak only of that mode which we believe best adapted to open, vineyard, field culture on the largest scale.

Almost every cultivator has an apparent reason for the distance at which he plants his vines, and hardly any two agree. Give each vine a stake six feet in height above ground, of the most durable wood possible to be procured. With your vine pruned back to three eyes as before stated, train the upper shoot to the stake as it advances in growth, to a height of two feet only; then allow it to bend over and spread as it may; this checks its over exuberant growth, shades the fruit better, and is preferable to pinching off or cutting back; and should it set more than one bunch of grapes, pinch them off. The two lower buds we would allow to grow as they might, without training up at all, each with its single bunch only. No summer pruning, cutting or shortening would we give, except pinching off the laterals that might appear from the first five or six joints only. Upon this head, the summer shortening, checking or cutting in of the vine, we had thought of saying nothing at the present time; but good authorities are so thickly strewn upon our table, almost speaking themselves into notice, that we conclude to make a quotation or two now, not knowing when we may renew the subject. H. W. S. Cleveland, of Burlington, N. J., cultivates an extensive vineyard, "and is increasing it largely." He says: "Formerly, I used to be careful in my summer pruning, but after experiment, I was convinced that the vines are best let alone; that all the leaves are needed for ripening the fruit." Dr. Sidney Weller, of North Carolina, in an article originally written for De Bow's Commercial Review, also says: "The principle of allowing the vine to spread and range freely, during summer is undoubtedly, correct." And J. Fiske Allen, as good authority as we have in the United States, says: "It is what I have recommended for many years." We might multiply authorities upon this point, but enough has been shown to prove, that however well the summer practice of shortening, checking the growth or cutting-in may apply to a European growth of the vine, practice, experiment and experience has proven it *not adapted* to American culture.

We will proceed to prune for the second bearing year, by shortening the upright shoot down to four, five or six buds, depending upon the strength of the vine; to those of weaker growth, of course a lesser number than to the stronger, and cut back the two lower shoots to two or three buds each, and then let the trimming for the summer be precisely the same as the previous year; and let the pruning of subsequent years be the same continued till the top of the stake is reached, or the vine has acquired the desired height. You will then have a strong standard trunk, surrounded with fruit spurs and bearing wood from bottom to top, but for several years requiring the stake to sustain it in its upright position. We have already extended our article to a much greater length than we intended, but the importance of the subject seemed to call for all that we have written, and much more might be said.

CABBAGES.—To prevent the growth of long shanks, and secure true, solid heads on those stalks that manifest a disposition to draw to what are commonly known as long "shanks." The *Gencsee Farmer* says:

"Take a pen-knife and stab it through the stalk about the middle; insert a small piece of wood to keep the incision open, which will check the growth. By doing this, a good head of cabbage may be secured on every stalk."

GRAPES, NATIVE WINE, &c.

Every season, (*says the Working Farmer*,) gives new evidence that many parts of our country are suited to grape culture, wine making, &c. Ramsay Crooks, Esq., of New York, is now selling a Hock Wine, made by the American Wine Co., of St. Louis, which is not inferior to the better class of imported Hocks, while the wine makers of Cincinnati, headed by the pioneer, Nicholas Longworth, Esq., are gradually displacing the Champaignes and sparkling Burgundies of France, by the sparkling Catawba, at least in the west. Cheap wines do not tend to drunkenness; and all the wine making countries of Europe fully establish this fact, while in those districts where distilled liquors take the place of wines, drunkenness is common. The wine drinking peasants of France and Germany are not drunkards. From the following, it is evident that California promises to become a great wine growing district:

Grapes from the garden of Mr. Dearborne, of Sandy Gulch, about thirteen miles above Mokelumne Hill, were brought into market at that place, last week, which for superior excellence, far surpassed anything of the kind we have seen of out-door cultivation. Mr. Dearborne has three varieties of foreign grape-vines, three years old, in full bearing; the Black Hamburg, Muscat of Alexandria, (the best grape known in the world) and the White Hamburg, (so called) but bearing a very striking resemblance to the White Syrian. One bunch of the latter on exhibition at the Union House, Mokelumne Hill, weighed seven pounds. It is truly astonishing to see such bunches of the Muscat of Alexandria, a grape so shy, naturally in setting its fruit, grown to such perfection in the open air; the first of the variety, true to the name, which we have seen and known to have been grown in our country. The bunches of the Black Hamburg variety were compact and well-formed, and the berries exceedingly large. The bloom on the berries, which professional horticulturists pay great regard to, was certainly noticeable and complete.

We have now substantial evidence of the adaptability of much of our mountain soil for grape-growing. As a proof of this, we would direct the attention of visitors to the above vineyard, and to the gardens of Judge Thompson, Dr. Holbrook, S. W. Brockway, Wm. Higby, A. P. Dudley, and others in Mokelumne Hill, the garden of Dr. Soher, Big Bar Bridge, as well as other nicely arranged gardens and vineyards in and around almost every camp in the country. The garden of Mr. Schrack, of the Golden Gate Ranch, is certainly entitled to creditable mention. This vineyard, which is quite extensive, is completely burdened with fruit, presenting a spectacle of no common interest. A few miles south of Mokelumne Hill, is the garden of Madame Catae, where the "fruit of the vine" gracefully hangs through the lattice-work of tastefully constructed arbors.—*San Andreas Independent*.

Very gratifying indeed, to us, comes the oft-repeated intelligence of success in grape-growing in the mountains, for it must be recollect that we have for years urged the cultivation of our mountain land; our hill-sides for vineyards being the very best soil and position for their culture. The *Independent* is ever alive to the interests of the country, and this excellent journal contains continued proof that it deserves the support of the industrials of our State.

Grapes in Toulumne.—So abundant is the grape crop of this country getting to be, says the *Sonora Herald*, that the cultivators will shortly be compelled, for want of a market for their fruit, to turn their attention to the

manufacture of native wine. We shall, when it arrives, hail that time as an auspicious period, because the general use of native wine will, in a great measure, supersede the consumption of poisonous manufactured liquors, and thus abate drunkenness.

THE GRAPE CULTURE.

We have no apology to make for the liberty we take in presenting this subject to the consideration of our readers. The time is now near at hand, when those who are disposed to embark in this pursuit, should be preparing their plants and cuttings for the ensuing Spring. Our enterprising fellow-citizen, Mr. H. Muhlenbrink has, for some time past, in connection with Mr. Axt of Crawfordville, been engaged in this business. They have a vineyard of seven acres in this vicinity, besides a large one at Crawfordville, where Mr. Axt has, for some time past, been making the finest Catawba wine in the United States, which can be bought at Mr. Muhlenbrink's store, in this city. We might, if we had time and space, moralize a little upon this subject. A great deal has been said and written about the evil consequences of the use of ardent spirits, and very justly said.

Let the culture of the grape, and the making of wine in its purity, be inaugurated in this country, and there will be no need of temperance societies. In France and the German States, where the pure juice of the grape is the common drink of the people generally, drunkenness is almost unknown. Strychnine and other drugs, which make up the principle part of our drinks at this day, are the fruitful sources of the most of the evils which flow from the use of ardent spirits in this day and generation. Let every man in Georgia have his own vineyard, and make his own pure unadulterated wine, and the price of strychnine would fall fifty per cent. "We speak as unto wise men, judge ye."—*Atlanta Intelligencer*.

LIME AS A MANURE FOR GRAPES.

EDITORS SOUTHERN CULTIVATOR.—There being many inquiries as to the proper mixture and use of lime as a fertilizer, I will give you the substance of what was published in 1857 in connection with the article on grape culture.

Take one bushel of salt, dissolve it into a barrel of water; with it slack one barrel (or two and a half bushels) of lime; mix the slackened lime with three cords of leaf mould, muck, rich top soil from virgin woods, or any vegetable matter; spade it well till it is thoroughly mixed; put it under shelter, and in a few weeks it can be used as it may be needed. Any quantity can be made by taking the same proportion of the different articles.

This is a good compost for corn and cotton as well as for the vine. It may be used broadcast or in the hill or drill. Sprinkle in the drill as cotton seed is sprinkled for manure; half a spade full to a hill, or ten, twenty or thirty cart loads to the acre broadcast.

D. P.

WINE FROM THE CHINESE SUGAR CANE.—We learn from Col. Wash. Crawford that Mr. Wood, of Washington, is putting up a distillery for the manufacture of wine from the Chinese Sugar Cane, with just enough of the juice of the native grape to give it color. We received a bottle of this wine some time since, after so long an interval from the receipt of the letter, that we had forgot the description given us of this wine, but attributed its superior quality to the age it had acquired before it came to hand. The truth is, we suspected some alcohol, sugar, &c., had been added. But we now learn that this wine was made, as stated above, from the Chinese Sugar Cane, and that nothing whatever was added but a little of the juice of the Mustang grape. We predict Mr. Wood will meet with complete success in his enterprise, in which case he will be entitled to the thanks of the country.—*Texas paper*.

TO MAKE YOUNG PEAR TREES GROW.—I was afflicted by the sight, in my garden, for four or five years, of the most luxuriant and thrifty young pear trees, which would not bear, but all their strength ran to wood. vexed at this, I resolved to try the effect of bending down the branches so as to check the flow of the sap, and cause them to form fruit buds instead wood of buds. Accordingly, the first week in December, I filled my pockets with stout twine; I drove down some small pegs into the ground beneath my trees (which had branched low, so as to make dwarfish heads;) I then tied a string to the end of every shoot, and gradually bringing down the end of the limb till it curved down so as to make a considerable bend or bow, I fastened it in that, either by tying the other end of the string to the peg, or to another branch, or a part of the trunk.

According to my expectation, the tree next year changed its habits of growth, and set an abundance of fruit-buds. Since that I have had plentiful crops of fruit without trouble. Take good care not to let many branches grow on the upright system.—*Horticulturist.*

FERMENTATION.—A thorough exclusion of the air from fermenting liquids is all-important. Professor Shephard here describes a most excellent way to accomplish this desirable object.

Messrs. Editors:—An important secret in fermentation of wine so as to retain a large amount of saccharine matter after fermentation, may be of service to the readers of the *Homestead*. The same process is equally beneficial in making cider. It is as follows:

Fill your cask with new wine or new cider, and bung it up tight. Then bore a hole in the centre of the bung, and fix in a tube, which must be bent over like a syphon with the long arm or end dipping into a vessel of water. The result is, that fermentation will go on, and the carbonic acid gas be forced through the tube, and escape under the water, while the oxygen of the air cannot return to enter the cask to make the wine or cider sour. This is, in short, the way to obtain the *pure juice of the grape.*

FORREST SHEPARD.
[in *Homestead.*]

CHEAP STUMP PULLER.

A very good stump puller may be made by any farmer who has an axe, a stick of timber, and a chain.

You have only to save one white oak stick in your clearing, 15 or 20 feet long. This is your lever power. You need not raise it to a perpendicular, nor lift it about by main strength. Hitch a good pair of oxen to the top end and make them drag it along side of the stump to be pulled—drag it till the butt end comes even with the stump.

Now, with a couple of iron bars, two men will cant this butt end against the fast stump—make the lever fast to the stump with a timber chain, giving it the right twist. Thus your machine is attached to the stump, and you have only to drive your oxen at an angle to give it the right twist.

Large stumps are drawn out by this simple method, and should your stump prove too large for your team, you have only to dig around and cut off some of the principal fangs—as all are obliged to do when they use patent machines.

Two yoke of oxen may be hitched to such a lever when the stumps are large, and with one or two yoke the lever is readily dragged from stump to stump without unfastening the drag chain on the top end. The attendance of two men is required, but there is not one-fourth part so much lifting and hand labor as when a complicated machine is used.

This white oak lever moves in a horizontal line and twists the stump off instead of raising it up into the air, a great advantage over the tipping operation, which leaves the stump on edge.

When the stumps are not large, one yoke of oxen and two men will accomplish as much in a day as any machine can do with two men to tend it. In fact, we have seen four men in attendance on a patent machine puller, and their labor was not so light as it is on a simple lever, drawn from stump to stump by oxen.—*Maine Farmer.*

HUNGARIAN GRASS.

BELIEVING a brief account of this grass and its merits may not be amiss, and knowing that the circulating medium of the "newspaper" extends through all the States of our Union, I will, for the benefit and interest of our farming community East and West, North and South, endeavor to say something relative to its introduction in America, of its productiveness, and also of its use, but feel certain I shall not be able to speak of its merits as it deserves. Its introduction in the United States was, as near as I can learn, in 1853, by a native of Hungary. A gentleman, then residing in the State of Illinois, procured a small handful of the seed from the Hungarian exile and took it to Iowa, and sowed it first on the prairies of the great West. The demand increasing, the little handful has fallen far short of supplying the cry for more seed. As yet its cultivation is chiefly limited to but two or three counties in Iowa, but such is the demand for it that its seed sells at unusual high rates. Its productiveness, both for hay and seed is such that it is supplanting oats and timothy, and even the numberless acres of corn are wanting before it and giving it place. From three to four tons of hay and from twenty-five to thirty bushels of seed is an average crop per acre, yet it has frequently been known to produce, at one cutting, six tons of hay and forty bushels of seed per acre. Drouth does not appear to effect its growth, its long roots striking deep into the earth, draw up the substance from a depth that our common grasses, owing to their short roots, cannot reach, which enables it to withstand the hot, dry blasts of midsummer when other grasses fail. Horses and stock of all kinds give the hay made from this grass the preference over all others. A horse fed on it with the seed left on, requires no other grain through the winter; cattle and cows fatten on it; and as a food for young poultry, it cannot be surpassed, as the seed seems to be suited precisely in quality and size to their wants. I have, as I said, given a very brief account of its merits, but hope some one more competent than your humble servant will give it more fully. I would further say, from what I know of it, that all that can procure even but a small portion of the seed and sow it, will be well repaid by its proceeds for the present year's subscription to your useful "newspaper."

The above can be relied upon as no exaggeration, but falls far short doing the subject justice.—*Ex.*

L. R., in *Valley Farmer.*
McDonough Co., Illinois, 1858.

PEAT, LIME AND POTATOES.—Mr. Philip O'Reilly, of Providence, R. I., (says the *Germantown Telegraph*) states that lime is of no avail in preventing potato rot, as he has tried it, and has seen it tried by others in vain. After many experiments, he has found that a handful of dry peat in powder or small pieces was the best preventive, and he thinks if it were generally applied, it would save ninety-nine in every hundred hills.

FATTENING ANIMALS.

There are certain principles which apply to the feeding of all animals, which we will briefly notice.

1. The breed is of great importance. A well bred animal not only affords less waste, but has the meat in the right places, the fibre is tender and juicy, and the fat is put on just where it is wanted. Compare the hind leg of a full-blood Durham ox, and a common one. The bone at the base of the tail extends much further in the former, affording more room for flesh, and the thigh swells out, of convex or circular shape; while in the common ox it falls in, dishing and hollow. Now the "round" is the most valuable cut, and is only found in perfection in high-bred stock. The same is the case over the whole body. So well do eastern butchers understand this, that their prices are regulated by the breed, even where two animals are equally fat. They know that in a Durham or Hereford ox, not only will there be less offal in proportion to weight, but the greatest quantity of meat will be where it brings the highest price when retailed, and will be of a richer flavor, and more fibre. The same is the case with hogs. A large hog may chance to make more meat on a given quantity of food than a small one, but the meat of the first will be coarse and tasteless compared with the other; and in the east, flavor and tenderness greatly regulate prices. Consequently, moderate sized, short-legged, small-headed hogs, always, in the long run, beat large breeds out of favor. In preparing for a market, "fashion and taste" must be as much considered by the farmer as by the tailor. This one fact is at present revolutionizing the English breed of sheep. The aristocracy always paid high for small Welch and Scotch mutton; but the great consumers, the mechanics, preferred large fat joints. The taste is now changed. In Manchester and other such cities, these large joints have become unsaleable; and all the efforts of the breeder are now turned towards small breeds maturing early, with comparatively little fat. According to late writers, the large Leicester and Cotswold are going quite out of fashion. When we give \$3,000 for a Durham bull, it is not that his progeny are "intrinsically" more valuable to that amount, but the increased value and the fashion together, make up the difference. And it is thus, that while Durhams and Herefords are preferred for ships and packing, Devons are high in repute for private families. The joints are smaller, but the meat has a peculiar richness, probably found in no other kind of stock: and the proportionate waste is said to be less than in any other breed. Thus in the London market, the Scotch Kyloes, and then the Devons, (the former even smaller than the latter,) bring the highest price, because preferred by the aristocracy. So in Dublin, spayed heifers are sought for. But the breed also regulates the profit. There is nothing more certain than that one kind of animal will fatten to a given point on much less food than another, and as fattening our stock is only another mode of selling our grain and grass, those animals are to be preferred which come to maturity soonest, and fatten on the least food. The difference in hogs is very great and important. While some breeds must be fed for two, or even three winters, others are full grown and fattened at ten months old; and the difference in profit is enormous. We cannot go into particulars, but the following rules may be considered as applying to all: An animal may be expected to fatten easily when it has fine, soft, elastic skin, with thin or silky hair; the head and legs short, the "barrel" large, but chest and lungs small; and when it is quiet, sleepy and easy in temper. An unquiet, restless, quick-tempered animal, is generally a bad feeder, and unprofitable.

2. Much depends in fattening, on outward and mechanical management. Fat is carbon, or the coal which supplies the body with heat. If we are exposed to cold, it is

burnt up in our lungs are fast as it is deposited by the blood; but if we are kept warm, by shelter or clothing, it is deposited throughout the body, as a supply on hand when needed. Warm stables and pens are a great assistance in fattening, and should never be neglected. So, also quiet and peacefulness are important. Every excited action consumes some part of the body which has to be supplied by the food, and detracts from the fat. In the climate of Michigan, warm stables, regular feeding at fixed hours, and kind treatment, with perfect cleanliness, save many a bushel of grain. Animals fed at irregular times are always uneasy and fretting.

3. Ground and cooked food fatten more profitably than raw food. Mr Ellsworth found that hogs made as much flesh on one pound of corn ground and boiled to mush, as two pounds raw unground corn; though the first did not fatten quite as rapidly, as they could not consume as much food in the twenty-four hours. By grinding and soaking, ten hogs will each gain 100 pounds in weight, on the same food that five would do if it were raw.

4. A change of food helps in fattening. Thus an ox fed entirely on corn and hay, will not fatten as fast, or as well, as one which has roots, pumpkins, ground oats or buckwheat, &c, fed to it at regular periods. The latter may contain intrinsically less nourishing matter than the corn, but the change produces some unknown effect on the stomach and system, that adds to the capability of depositing fat. The best feeders change the food very frequently, and find that they make a decided profit by so doing. Salt should be given with every meal to cattle—say an ounce a day. It preserves the appetite and prevents torpor of the liver to which all fattening animals are subject. This torpor, or disease, is to a certain extent conducive to fat; but carried too far, the animal sinks under it.

5. In cattle the skin should be particularly attended to. A fat animal is in an unnatural state, and consequently subject to disease. Taking no exercise, it has not its usual power of throwing off poisons out of the system, and if the skin is foul, the whole labor is thrown on the kidneys. It is found by experience that oxen, regularly curried and cleaned daily, fatten better and faster than when left to themselves; and if the legs are pasted with dung, as is too often the case, it seriously injures the animal.

6. Too much rich food is injurious. The stomach can only assimilate a certain quantity at once. Thus an ox will prosper better on thirty pounds of corn and thirty pounds of cob ground together daily, than on forty pounds of ground corn. These mixtures are also valuable and saving of cost for hogs when first put in the pen. If an animal loses its appetite, the food should at once be changed, and if possible roots, pumpkins or steamed hay may be given.

7. Oxen will fatten better if the hay or stalks are cut for them, but care must be taken not to cut too short. An inch in length is about the right size for oxen, half or three-quarters of an inch for horses.—*Farmers' Com. and Horticultural Gazette.*

COTTON IN CUBA.—Cotton is now grown in Cuba with excellent success. A Havana correspondent of the *Savannah Republican* speaks of a cotton field on the island, that this year yielded 900 pounds to the acre, and a second crop of bolls are now on the plants. He says:

"Proper gins, &c, have been sent for to Charleston, and Georgia; South Carolina and Louisiana will have to look to their honors as cotton producing States. Cuba will ere long deprive them of that grand position they now occupy in the cotton market of the world."

MAKING FARM LIFE ATTRACTIVE.

A few months ago, something was said of the importance to farmers, of cultivating a habit of observation, and of making notes of their experience for the benefit of others. A few thoughts on this general subject may well be added:

Why should not every farmer make a cabinet collection of every kind of rock upon his land? All soils are made up, in no small measure, of these rocks disintegrated (worn down) by the action of the elements. Having small specimens of these rocks arranged on shelves in his house, he can daily see the chief constituent elements of his farm. To do this, he need not himself be a scientific chemist or mineralogist; the neighboring school-teacher or educated physician will tell him the precise name and quality of every stone. Then let him label them, and at his leisure read and learn all he can about his cabinet of minerals.

Near by, let him have a collection of the different soils on his farm; from the hill and valley, top soil, subsoil, alluvial, clay, gravel, and sand. Let these be arranged in vials and bottles, and neatly labeled. And let him not stop here. Do not trees grow in his wood-lot and orchard, and grasses and grains in his fields? Let him select specimens of every variety of wood—say a small cross-section of every sort of tree, specimens of their leaves, flowers and seed, and samples of dried grasses and grains, neatly prepared and labelled. And as to fruits, if he has a son or daughter skilled in drawing, they should make pictures of all the fruits growing in his orchard and garden. A gentleman of our acquaintance has begun to make such a collection of fruits, drawn and colored by his own hand in leisure hours, and it is very beautiful. He takes the fruits as they successively ripen, drawing and painting them in water-colors. He began with the earliest strawberry, and included the cherries, raspberries, currents, summer pears, apples, and Fall and Winter fruit. Those which escape him one year, he obtains the next year. When he has copied the whole circle of fruits growing in his neighborhood, he intends to have the drawings handsomely bound. They will make a set of books of rare interest and value!

Let the farmer and his family make some collection of this sort. And to these things let him add specimens of the insects injurious to vegetation, classified and named. Nor would it be amiss to make or purchase drawings of useful animals, farm implements, and various works of art taste.

But enough has now been said to show that a wide field of pleasing and useful observation lies open before any farmer. How much would the habit we have advocated tend to liberalize his views, give him a new and stronger interest in his chosen profession, and elevate it also in the minds of others! It would then be plainly seen that there is no end to the subjects of interesting and useful observation and thought suggested by the pursuits of agriculture. And what a happy influence would this habit of observation exert on the children educated on a farm so conducted! They would grow up, thinking men and women, and they would honor and fondly love the calling of agriculture.

How foolish it is for farmers to complain of their children forsaking the homestead at the earliest opportunity, while such parents do nothing to invest farming with some kind of attractions! Their children would be dolts, if they didn't wish to get away from some farms that we know of. But let parents show them that agriculture is something besides drudgery; show them that it awakens thought, demands thought, and honors thought, and they will not run away from it. They will not hasten to towns and cities to engage in trades and professions less honora-

ble, more uncertain of yielding pecuniary advantage, and less healthful to body and mind and morals.

**ONE WHO TRIES TO PRACTICE
WHAT HE PREACHES.**

American Agriculturist.

BRILLIANT PROSPECT FOR COTTON PLANTERS.

We clip the following from the January number of Debow's *Review*, for the benefit of our cotton planting friends.

The intelligent commercial editor of the United States Economist predicts for cotton the most gratifying future:

"The course of events for the last two or three years had pushed consumption of cotton so far ahead of the production that the prices had risen to 48c., notwithstanding that the high price of food in Europe and the state of affairs in Asia were adverse to a large consumption of cotton. The panic has greatly curtailed the use of cotton, but the prospect now is a combination of all the elements of a large consumption, Asia taking great quantities this year, and with a crop which is now estimated at 3,500,000 bales, or 400,000 bales more than last year, the excess in receipts over last year being already \$240,-000.

"If cotton has maintained its value in the last year, with an increased crop of 100,000 bales, and a decrease of 500,000 bales in consumption, it is but reasonable to assume that with a renewal of the consumption, under the favorable operation of cheap labor and larger markets, that the prices of 1857 will be reached, say 18c. for middling, or that the mark then anticipated—20c. for fair cotton—will be reached. This would give a value of \$327,000,000 for the crop of 1858 coming to market in 1859. Such a result, supported by good crops, and sales of sugar, tobacco and rice, will give continued balances in favor of the South, which already presents such a strong contrast to the Northwest, where the prolonging of revolution lies upon crops and values."

THOROUGH TILLAGE.—At one of the Irish agricultural meetings, one of the speakers remarked—and the truth may be well applied in this country:

"What brought out the immense agricultural wealth of Scotland? and what enabled the small farmer in Belgium, who, on seven or eight acres of light, sandy land, was able to do better for himself and his family than we can do on twenty or thirty acres of land in this country? It was not by allowing three-fourths of a light tillage farm to remain in poor herbage, and making the other quarter pay the rent. It was because the farmers in those countries alluded to, made agriculture a study, a duty, and a pleasure, and because the farmers till their land to the best advantage, and because no man there would keep one single acre of land more in his possession, than his capital and his means would enable him to cultivate."

MORTALITY OF RACES.—The Providence R. I. *Journal* in reviewing the tables and reports of that city for 1858, remarks:

In proportion to the population, the number of deaths in 1858, was very nearly as follows:

White American population, one in 57.

Colored American population, one in 28.

Foreign population, one in 39.

For the whole population, the deaths were about one in fifty.

The large proportional mortality of the colored population is undoubtedly owing to cause inherent in the race itself in the Northern climate.

[From the New Orleans Sunday Delta.]

SONG OF THE COTTON PLANT.

BY JOHN ANTROBUS.

I slept in the eye of the golden sun,
Nursed by the breath of the tropic zone,
I drank the dews from a million flowers,
And fed on the balm from roses blown.

I lay in the gray of the early spring,
In the loamy banks of the parent stream;
And I heard it sing of the lands it knew,
Where the frost-winds chant and the ice-lamps gleam.

But soft and warm in the tropical soil,
I lay till the yielding earth was green;
And the air was thrilling with vernal sound,
And odorous censors swung unseen.

Then, awake with the sun at early dawn,
I rose, and mantled the genial mold;
And over the tapestried plains of green,
I scattered a bloom of burnished gold.

At noon, I tinted each quivering cup,
With rosy streaks from the solar ray;
And I kindled a blush of crimson flame,
Which purpled the blossoms at close of day.

I arose in pride, as the summer gleams
Fell warm and fond on my emerald vest,
And gladdened with life I lavishly hung
Thick, clustering bolls about my breast.

Oh! I smiled when the nipping autumn's wind
Withered my leaves in the dead of night,
For close at my heart was the downy fruit,
And mocked at the wandering midnight blight.

But, ah! the triumph was mightier still,
When the subtle frost came stern and black;
I rose in might, with a banner of light,
And flung my robes on his dreary track.

And lo! when the sun, with misty eyes,
Looked forth on the work of the sullen night,
I met his gaze with a flood of rays
From a thousand flowering fields of white.

I jeweled the banks of that mighty stream,
Which ever rolls to the sounding sea,
And its solemn floods, where'er they go,
Bear forth some memory there of me.

I have crossed the deep, I have filled the isles,
I have made proud Europe own my sway;
And the anxious millions humbly wait
To carry me on my regal way.

But you deem it strange (to see me lie,
A simple plant in a fertile land,) That I should stretch from coast to coast,
And hold the balance in my hand.

I hold the threads in the web of trade;
Commerce is knit in the woof with me;
Nations I hold with a simple braid,
While I laugh at War's artillery.

I abide a while 'mid sullen walls,
Dumb with the dinning of shaft and wheel,
While shiv'ring mortals grimly watch
My panting throes on the burnished steel.

There a million spindles whiz and whirl,
And torture my heart with whirring spoom;
But my silken veins revive again,
In wond'rous forms from the heated loom.

From cradle to grave I nurse and robe,
And blazon with vestments lordly man;
I flutter among the bridal guests,
And join with grief in the funeral train.

I swathe the limbs of the royal babe,
The serf, and the freeman lowly born;
While I make the cerements for the king,
And the stinted shroud by the pauper worn.

I cherish the thoughts of mighty men,
From pen and press, on the snowy page;
And lie in the broad and pregnant sheet
Which chronicles time from age to age.

I have slaves at my back, who dress my fields,
And gather me in my lusty prime;
Who laugh at the jeers of Northern seers—
Bubbles to break on the lip of Time!

The North may fume in its smoky looms,
The West may hide in its fields of grain;
But with wings as white as cygnet's breast,
I lie to the Sunny South again.

I pillow her head on my breast of down,
Strengthen and lengthen her bands of trade;
Where I stretch my wings her flight may be,
With banners of light and might arrayed.

Once in the dawn of a Nation's day,
When struggling Freedom almost fell,
I rose in her front with rampart-bales,
And bared my breast to the shot and shell.

Then freemen sped with a joyous shout,
And placed their banners aloft with me;
While "Liberty," with her sacred things,
Twined me in her wreath of victory.

Give hemp and flax to the grosser soil,
China the nest of the silk cocoon,
Give me the lands of the golden zone—
I'm King, and the genial South my throne!

CHINESE SUGAR CANE.—One of our patrons in Texas, seeing a notice of the souring of the Chinese Sugar Cane Molasses, has addressed us a note, containing suggestions that may be profitable to those of our farmers engaged in the culture of this article:

ECLETO, Karnes co. Texas, Dec. 18, 1858.

Editor Knoxville Whig :—Dear Sir :—From a notice in one of your papers, I see there are complaints—in your section of the country—in regard to the Chinese Sugar Cane Molasses, fear of its souring, &c.

I made some the last season which soured—the cause of its souring I think was for the want of thorough boiling. I boiled it over, putting a little Sal Soda, say half an ounce to the gallon of syrup, and was well paid for the trouble, the Molasses being much better than when first made. You can make this public for the information of those whom it may concern.

Respectfully yours, &c., O. H. P. SCANLAND.
[Knoxville Whig.]

WHAT ONE BEAN HAS DONE.—According to the Barnstable (Mass.) Patriot, Mr. Loring Crocker, of that village, raised last season on one stalk, and consequently from one bean, 106 pods, which yielded 453 beans!

AGRICULTURAL EXPERIMENT.

WHEN Agriculture meets with its just and rightful attention, everything bearing upon it is sure to prosper. Life and activity is given to all the operations of man, and the world moves as if upon greased axles. Beauty is impressed upon everything which surrounds us, and our handiwork bears unmistakable signs of prosperity and intelligence. To plant properly requires thought and reflection, and to be successful in planting, our minds must go back through long years, that experience may be rendered profitable, and passed errors remedied. All can plant and raise something which may be styled fruit, but all do not plant so as to be equally prepared for sunshine and rain, drouth or wet, and live confident the harvest will be every way satisfactory.

In the midst of the continual change which is going on, it is not reasonable to suppose routine planting and cultivation will answer, but, on the contrary, we are continually admonished to advance by means of a proper application of mind to our pursuit, and, by addressing ourselves to the reasonableness of all things and systems, determine which is the best—which is the safest course to pursue. It is well known that some years we suffer by drouth, some we are too much flooded; reason, then, would prompt us to set on foot an enquiry after that mode of preparation, planting, and cultivation which would be proof against either extreme. The science of Agriculture consists in this, to make the most with the least labor, and under all and every circumstance. When an Agricultural people give themselves up to this character of progress and advancement, then they may be truly said to be developing their science, making for themselves and their growing plants strong armors against all enemies, improving the soil, making the staple richer and better, the fruit more delicious, the country more independent, and themselves more intellectual.

Judiciously directed experiment will accomplish everything, and, indeed, the farmer and planter is infinitely more benefited by his own experiments than by those of others—that of others may direct him in pursuing his own, but should never be followed except under the guidance of his own judgment—a reason for this is readily seen in the fact that the same combination of circumstances can hardly be expected to surround any two making the same experiment. We hope this matter will receive its merited attention from our Agriculturists.—*Southern Rural Gent.*

AGRICULTURAL EDUCATION.

The New York Farmer, published at Trenton, in introducing to its readers a recent letter of Gov. Wright, of Indiana, describing an agricultural school in Germany, says:

"Every profession has its school—why agriculture should be left to glean its learning as best it may, we cannot understand. If schools are necessary to train the clergyman, the lawyer, the doctor, the merchant and the artist, is it not eminently proper that agriculture, which depends so entirely for its complete success upon a knowledge of the natural sciences, should also have its schools?"

Certainly it is, and it passes our comprehension to know why, among farmers themselves, such prejudices exists against everything that is to qualify the young farmer for his profession, except the mere act of his working upon the land with his own hands. It is breath spent in vain to talk about managing a farm well theoretically. We might as well expect the body to grow and flourish without its vitalizing breath; theory and practice must go together, and it is well if the *practice* is quite thorough before we pause to theorize much. That proper schools for

instruction will afford the young farmer important aid in the pursuit of business, will not admit of a doubt it seems to us, in any unprejudiced mind. What such schools shall embrace, and how they shall be managed, are questions not yet settled among us.—*Southern Rural Gentleman.*

HISTORY OF THE PLOW.

THE first plow is supposed to have been the rude branch of a tree, cut so as to have a cleft end, the point of which dragged along the surface of the ground, scraped a furrow into which seeds were thrown. It soon occurred to the husbandman that he might relieve his own labor by yoking an animal to the long arm of his primitive instrument; then arose the necessity for a handle, affixed to the back, so that the plow might be guided. The strength of the animal soon wore away or broke the cleft of the branch, and this necessity gave rise to the invention of means for attaching movable shares, first of wood, and next of stone, copper or iron, worked to a shape adapted to the cutting of furrows, so as to avoid the excessive labor arising from the plowman's having to lean upon the plow with all his weight, to press it into the earth. Just such an implement as these conjectures indicate, was used by the Saxons.

Some of the facts connected with the history of the plow are almost incredible.

In Ireland there once prevailed a custom of "plowing by the horse's tail." The draft-pole was lashed to the tail of the horse, and, as no harness was employed, two men were necessary, one to guide and press upon the plow, the other to direct the horse, which he did by walking, backwards before the miserable animal, and beating it on the head on either side, according to the direction required. This custom prevailed for a considerable time, in spite of a law which was passed in the early part of the seventeenth century, imposing severe penalties upon persons found guilty of "plowing by the horse's tail," as in the act mentioned and described. From the Rev. Cæsar Otway's "Sketches in Erris and Tyrawley," it appears that the barbarous practice lingered in the remote west of Ireland as late as the year 1840! And from a paper "On the breed of horses in Scotland in the Ancient Times," printed in the first volume of the "Transactions of the Society of Antiquarians of Scotland," we find that the same custom was practiced in that country as late as the year 1792.—*Progress of Agriculture.*

GROWTH OF ANIMALS.—Man grows for twenty years, and lives ninety or one hundred.

The camel grows for eight years, and lives forty years.

The horse grows for five years, and lives twenty-five years.

The ox grows for four years, and lives fifteen or twenty years.

The Lion grows for four years, and lives twenty years.

The dog grows for two years, and lives for twelve or fifteen years.

The cat grows for one and a half years, and lives nine or ten years.

The hare grows for one year, and lives about eight years.

The guinea pig grows for seven months, and lives six or seven years.

Wherever you see a neat farm, be assured the manager is an economical man; where a farm is the reverse, the manager is not an economist.

STARTING SEEDS EARLY.

Rev. Daniel Emerson, Summit Co., O., writes that he has been successful in giving garden seeds an early start in the following manner: Having selected the quantity needed, each sort is tied by itself in a cloth, the name being plainly written on a slip of paper, and inclosed with the seed. The packages are then buried about two inches deep in the ground, for a week or two. When ready to plant, the kinds needed for planting are taken from the bags used. They will be found to have swelled, perhaps sprouted, and ready to grow. If the ground should be quite dry, it is best to water the drills after dropping the seed, and then cover with dry earth. Mr. E. says that by this plan he has never failed to raise plants from every seed planted, though when put out they were often sprouted. If each seed is placed where it is wanted to grow, it will save the labor of thinning, though many prefer to thin their rows, leaving the most prominent plants to grow.—*American Agriculturist.*

GOPHERS.—In some portions of the South, and more particularly in California, there is a pest known as gopher, an animal somewhat like a ground squirrel, and very sly and difficult to catch. They live in holes dug in the earth and where they are abundant they are very destructive, consuming the seed as well as the product when the seed escapes their ravages. Chemistry has been invoked to show how they may be destroyed in their holes, and the following is the process given by the *California Farmer*:

"Prepare strips of pine wood, about the size of the finger and six inches long, then take rosin and melt the same; dip the point of the stick in the melted rosin, about two and a half inches, and let the rosin be rolled around the point of the stick—perhaps two coats of rosin; then take powdered sulphur (flour of sulphur) and roll the dipped end in the sulphur till it is well coated; then again dip it in the melted rosin, and again in the sulphur, and give last coat of rosin, making four coats of rosin and two of sulphur, to the thickness on the stick, of one-half to three-quarters of an inch, prepare as many sticks as there are gopher holes, and take them to the place; insert the stick a little distance in the hole and light it; then cover the hole with a clod of earth, not to put out the light, and leave the remedy to work a cure. The match will burn freely, although the hole is closed, and will speedily generate sulphuric acid gas, which is and must be certain death to all that breathes below the surface, within reach of its power, and it will perforate every nook and corner of earth where there is a pore, working downward as well as upward; thus, at once relieving our industrious farmers of one of the severest trials they have had to encounter."

The same process (says the *New York Tribune*) may be used to destroy other noxious *carmints* where gophers are unknown.

LARGE SALE OF COTTON.—During the present week, Col. Joseph Bond disposed of (in this city) his entire crop of cotton of 1858, amounting to over 2200 bales. The purchase was made by Col. T. R. Bloom of Macon, and the net proceeds amounted to over *one hundred thousand dollars*. This is the largest sale that we have heard of being made in Georgia, and the largest crop of one season made by any planter in the State. This crop was raised in South-Western Georgia, and grown on the following plantations: "Fowltown," "Wilkins," "Mud Creek," "Ducker Place," "Hickory Level" and "White Hall." These places embrace some of the finest lands in the State. Should Col. Bond live a few years, with his present income, and exercise *prudence* and *economy* he will, *perhaps*, be a rich man.—*Albany Patriot.*

MANUFACTURES IN THE SOUTH.

The New Orleans *Picayune* is much pleased at the steady advance of the South in manufactures. It says the most profitable cotton factory in the South is in East Mississippi, and that many of the cotton planters have introduced the new machine to spin cotton on the plantations. In Warren county there is a movement to establish a factory in that rich region. The *Picayune* concludes:

This is a movement in the right direction. The South can manufacture cheaper than any other part of the world. With the raw material growing in sight of the factory; with slave labor, under all circumstances and at all times, absolutely reliable; with provisions of every description and of the best quality, and cheaper than in any other quarter, furnished without transportation, the manufactured fabrics can be produced so as to compete successfully with the world. The North and Europe herself, will find that the South has advantages for manufacturing purposes that even pauper white labor will not counterbalance. Success to the movement to manufacture in the South! It is destined to form one of the most powerful elements in our advancement in wealth and power.

This sounds very encouraging,' says the New Orleans *Delta*, but how, neighbor, if negroes continue to advance as they have for the last three or four years? They command sixteen hundred dollars, and if a few thousands are drawn off into manufactories, this figure will be still further increased.

WILL CLOVER KILL CATTLE?—MEASURING CORN IN BULK.

EDITORS SOUTHERN CULTIVATOR—I do not often write for the scrutiny of public gaze; but I feel constrained to reply to your correspondent, "W. A.", whose article appears in the June (1858) number of the *Cultivator*.

Raised in Ohio, I have been familiar with the growth of Clover, and I believe it is known to farmers there, generally, that Clover, white or red, when in blossom and especially whilst wet with dew, is very likely to kill cattle. "W. A." asks "What is there in it?" Now, since my step-mother was a Yankee, I'll answer by asking: "What is there in it" that makes it a superior pasture? But "why did it kill one and not another?" Because one eat a greater proportion of bloom than another. Why did it kill the milch cows first? Partly for the same reason; and partly because the solid food you gave them, left less room for the expanding clover bloom. I have seen like results from a like cause in Ohio. The symptoms of illness, and *post mortem* appearance, narrated by "W.A." contain an account of the observation of many a mortified stock grower.

That rule for measuring corn in bulk, which appeared in your April (1858) number, is most egregiously in error. A bushel of shelled corn occupies more than a cubic foot, while the rule makes a bushel of ears only equal to 4-10 foot. The correct rule is to divide the cubic foot by 4-1-2, because 4 1-2 cubic feet make a barrel, *i.e.*, a flour barrel full of ears, which will generally shell out about a bushel. Instance, 4 1-2 feet make a bushel—hence $4 \frac{1}{2} \div 4 \frac{1}{2} = 1$.

But as per April number $4 \frac{1}{2} - 4 \frac{1}{2} = 2.0$ 1-4. You see at once that it would not begin to do.

J. T. K.

Yorktown, Texas.

BLOODED STOCK.

To what is the comparative failure of the American horse in England to be attributed?

Is it that the English horse is superior in some or all the requisites for the turf? Or is it to be accounted for by the effects of change of climate, or some unfavorable influence of so long a sea voyage?

A writer in one of the English papers is certainly free in his comments on the specimens of our stock which have entered the lists in England; this is a tough morsel for our sportsmen:

"In America, great attention is being paid to the breed of horses, and hence some of our best animals have been of late exported. Jonathan however, entertained an overweening estimation of his blooded stock, and although he acknowledged that the British racers could lick creation, he boasted that his could lick the British. Lecomte and Pryor died in this country, but before their death they did nothing to justify the reputation which preceded them to England. Prioress—not better than a second-rate English three-year-old—has been more fortunate than meritorious; whilst Babylon and Bonita—if we are to regard them as specimens of the American race horses—have brought the American blood-stock into contempt. The former came to this country with a reputation of having chased a flash of greased lightning round a field, and beaten it by a neck; but it has been proved that he cannot go over a two mile course, unless carried in a van; whilst Bonita, not bigger than a donkey, would be a week galloping off a cabbage leaf."

This is noticed by *Porter's Spirit of the Times* as follows:

"If any of our racing correspondents wishes to contest the above views, they are welcome to the battle. For our part, we will be a little patient, and wait till next year. We feel at liberty to say at present, however, that we do not consider the relative measure of merit between the horses of the two countries as by any means established through the comparison of the last two seasons; and we shall not be finally satisfied in the premises until some first class English race horse is sent out here. We wish to ascertain whether there is not something in acclimation, and the effects of an Atlantic voyage on thorough-bred stock.

MANURING LIGHT SOILS.—I like your paper first rate, and would like to see a few hints as to the best way of managing a farm composed of 30 acres of light sandy loam. As my farm is on high land, and composed of a light sandy loam, the advice about draining, using peat, muck, &c., does not reach my case, as these materials are not at my command; would that they were. I cannot satisfy myself as to what is the best way to enrich my farm; yet it must be done somehow to make it pay. Am at present using the manure from one horse, six cows, three hogs, and fowls, mixed with half loam.

O. P. W.

The application of the compost, so far as it goes, is a good one—the greater the amount of clay in the loam used for the compost the better, both because it is the best absorbent of the enriching parts of the manure, and because it tends to give strength to the soil. We would recommend as an additional means of enriching the land, the practice of plowing in frequently green crops, and especially clover. It often happens that this proves much the cheapest mode of manuring, obviating the cost of heavy cartage. The addition of some lime, ashes or marl (shell or earthy) in connection with other fertilizers will probably be useful.—*Country Gentleman.*

NATIONAL AGRICULTURAL COLLEGE.

The following are the provisions of the bill, now pending in the Senate, for the establishment of a National Agricultural College in each State of the Union:

Sec. 1. Enacts that 5,920,000 acres of land be appropriated in each State, in quantity equal to 20,000 acres for each Senator and Representative in Congress to which the States are now respectively entitled.

Sec. 2. That the said land, after being surveyed, shall be apportioned in sections, or subdivisions of sections not less than one-quarter of a section; and wherever there are public lands in a State worth \$1 25 per acre—(the Governor to determine the value)—the apportionment shall be selected from such lands. Where there are no public lands of the value of \$1 25 per acre, the Secretary of the Interior shall issue land scrip to the amount of their distributive shares in acres, such scrip to be sold by such State and the proceeds applied for the purpose of this act. *Provided*, That in no case shall any State locate its land scrip within the limits of any other State, but their assignees may locate their scrip on any unappropriated lands, subject to private entry.

Sec. 3. All expenses of management and disbursement shall be paid by the respective States, so that the entire proceeds of the land shall accrue to the College.

Sec. 4. All money from lands and scrips shall be invested in the United States, or other safe stocks yielding not less than 5 per cent.—which sums invested shall constitute a perpetual fund for ever undiminished, of which the interest shall be inviolably applied to the maintenance of at least one College in each State where the leading object shall be, without excluding other scientific or classical studies, to teach such branches of learning as relate to agriculture and the mechanic arts, in such manner as the legislature may prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

Sec. 5. Details various financial minutiae, and permits 10 per cent. of the grant to be expended in purchase of site for experimental farms. An annual report shall be prepared by each College and be sent to every College constituted under this act, also the Smithsonian Institution and the Agricultural Department of the Patent Office. This bill passed the House of Representatives, April 22, 1858.

A PRETTY CONCEIT.—We yesterday saw, in the parlor of a friend, a very beautiful conceit. It is, of course, the fancy of a lady, and consists of a burr of a pine tree placed in a wine glass half full of water, and from between the different layers of the burr are shooting forth green blades—bright, beautiful, refreshing. For a little thing, we have seen nothing that so pleased us by its beauty and novelty. And the secret is this: The burr was found dried and open; the different circles were sprinkled with grass seed, and it was placed in a wine glass, with water in as above. In a few days the moisture and nourishment gave the burr life and health; the different circles closed and buried within themselves the grass seed, and a few days more gave to the seed also life, sprout and growth; and now a pyramid of living green, beautifully relieved by the sombre hue of the burr, is the result—as pretty and novel a parlor ornament as we have for a long while seen. We do not know whether the idea was original with the lady, but we do not know that its success is beautiful.—*Troy Times.*

LOVE OF FLOWERS.—If you find that your child loves flowers, cultivate that love—encourage it. It will be found refining and elevating, and the child will grow thoughtful, docile and beautiful under such influence. Let him (or her) learn the history and character of one flower, before another is added to the list.

Domestic Economy and Recipes.

HOW TO KEEP MEAT FROM SPOILING.—At this season of the year, when persons are putting up their meat, it frequently happens that a sudden change in the weather, or other causes, gives a tendency to the meat to become tainted. This may be completely remedied by taking a quart of water and pouring into it two or three table spoonfuls of Darby's Prophylactic Fluid, which may be had at any Drug Store, and then thoroughly washing the parts affected with it. If the meat is badly tainted, a larger quantity of water should be used.

To housekeepers, this information will be very valuable for more purposes than to prevent the spoiling of meat. It will apply to removing the rancidity from butter and lard with the same result.

We have frequently tried this simple plan ourselves and known others to try it, and we have never known it to fail. It entirely removes all bad odor and makes the meat as sweet and solid as it ever was.—*Atlanta Intelligencer.*

IMPORTANT TO HOUSEKEEPER.—A lady correspondent desire to impart to the public what she believes to be valuable information. She writes that having read the papers of the death of a man in Boston from inflammation caused by the toe nail growing in, she desires to let the public know of a remedy which she used in her own family with complete success. A daughter suffered for years—consulted several physicians, and had finally arrived at the point where the doctors said the toe must be cut off, or the nail torn off, to save life, when this simple but sure remedy was applied, and in a very few days the cure was complete. The remedy was simply blue vitriol, a small quantity mixed with an equal quantity of burnt allum, pulverized and sifted through muslin. If the toe is ulcerated, first wash it with Castile soap suds, and then apply the powder two or three times a day.

She also wishes to have the ladies know her remedy for getting rid of cockroaches. It is simply to take a dish with live coals in it, covering the coals with tobacco leaves and placing it in the closet, cupboard or buttery, and they are no longer to be seen.—*Exchange.*

ECONOMICAL USE OF NUTMEGS.—If a person begins to grate a nutmeg at the stalk end, it will prove hollow throughout; whereas the same nutmeg, grated at the other end, would have proved sound and solid to the last. This circumstance may be thus accounted for: The centre of a nutmeg consists of a number of fibres issuing from the stalk and its continuation through the centre of the fruit, the other ends of which fibres, though closely surrounded and pressed by the fruit, do not adhere to it. When the stalk is grated away, those fibres, having lost their hold, gradually drop out in succession, and the hollow continues through the whole nut. By beginning at the contrary end, the fibres above mentioned are grated off at their core end, with the surrounding fruit, and do not drop out and cause a hole.—*Arthur's Home Magazine.*

IPECACUANHA AND DELIRIUM TREMENS.—The jail physicians at Chicago, has had 100 cases of delirium tremens the past year, of which only four proved fatal. Of his manner of treatment, the doctor says:

"Ipecacuanha, which I have tried in thirty-six cases, I found most remarkably successful, quieting the nervous system, exciting the appetite, acting on secretions, and uniformly producing sleep. When a case is not of too long standing, I give it as an emetic the first dose, and afterwards I give from 15 to 18 grains every other hour. Connected with this remedy, I use shower baths, and let the patient frequently drink strong beef tea, without any alcoholic stimulants."

SANDWICHES FOR EVENING PARTIES.—Chop fine some cold dressed ham, say about a quarter of a pound; put in a basin with a tablespoonful of chopped pickles, and a teaspoonful of mustard, a little pepper or cayenne; put about six ounces of butter in a basin, and with a spoon stir quickly till it forms a kind of cream; and add the ham and seasoning, mix all well, have the sandwich bread cut in thin slices; have already cut, thinly intermixed with fat, either cold roast, beef, veal, lamb, mutton, poultry, pheasant, grouse, fowl, partridge, &c., either of which lay evenly and not too thick, on your bread; season with a little salt and pepper; cover over with another piece of bread; when your sandwich is ready, cut them in any shape you like, but rather small and tastily, and serve. You may keep them in a cold place, if not wanted, as they will keep good under cover for twelve hours,

GRAHAM BREAD.—One quart of milk; scald one-half of it and pour on one quart of good Graham flour; then add the rest of the milk warm; and flour enough to stir as thick as possible with a spoon, adding half a cup of good molasses while stirring it—then bake slowly for one hour.

Another.—Two tea-cups of sweet milk, two of sour milk, half a cup of molasses, one teaspoonful of soda, Graham flour enough to make a thick batter—bake slowly one hour.

This makes the better bread of the two recipes, in the opinion of the generality of people.

Graham flour to be good should be made of the best white winter wheat, and great care should be taken by the miller that it be not ground too fine. It spoils it to be ground fine; the bread does not rise well. Every house-keeper should have this bread.

BLAZE-PROOF DRESSES.—The London *Medical Times* says:

"The melancholy accident by which the Ladies Laura and Charlotte Bridgeman and Miss Plunkett have been such fearful sufferers teaches a lesson which must not be neglected. The light fabrics manufactured for ladies' dresses must be made blaze-proof. Nothing can be more simple. The most delicate white cambric handkerchief or fleecy gauze, or the finest lace, may, by a simple soaking in a weak solution of chloride of zinc, be so protected from blaze that if held in the flame of a candle they may be reduced to tinder without blazing. Dresses so prepared might be burnt by accident without the other garments worn by the lady being injured."

CROUP.—At a recent meeting of the Paris Academy of Sciences, the disease of croup—so common among children—formed the subject of very important remarks. Dr. Judin stated that it was a parasitic affection, and of all simple remedies capable of removing these parasitical growths the perchloride of iron is by far the best. It penetrates through the fungus, modifies the hemorrhagic state which always exists in the affected parts, and in their neighborhood, and, lastly, obliges the patient to expectorate, by which means the false membrane is expelled, and an immediate cure effected.

PRESERVATION OF MEAT.—A Belfast (Ireland) paper states that meat first dried in a current of air and then hung up in a close chamber and exposed for twenty or thirty minutes to the fumes of burning sulphur, will keep as long as required. The meat, before packing, must be further dried and then covered by some impervious substance. Sheep killed in Algiers during the month of August, and passed through this process were taken to Paris, and sold a month later. We have seen hams which after packing, were smoked a short time over burning sulphur, that tasted and kept well.—*Country Gentleman.*

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 See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—The general prevalence of heavy rains during the past winter, has, doubtless, retarded the preparation of land for Corn and Cotton, and it may not, therefore, be too late to urge upon our readers the great necessity of *breaking up their lands very deep*, as a preparation for the *long drouths* which are almost certain to follow the deluge which we have been subjected to. It is too late, now, to discuss the benefit of *deep plowing*—it is universally admitted by all farmers of sense and experience.

If the ground has been properly prepared, Corn should now be planted, immediately—if not prepared, do not delay a moment, in getting it ready. *Manure heavily*—plow *deep*—use the best and heaviest seed you can obtain, and let your after-culture be of the most thorough character, working often and *shallow*, so as to *break no roots*. Indeed these three things comprise the whole system of Corn planting, viz: *deep breaking up*, plenty of *manure* turned under, and a frequent, shallow stirring of the surface during the growth of the crop.

Cotton.—After your Corn crop is well started, push forward the planting of Cotton without delay. It is very important to get an early stand, and much may be effected in this way by throwing up the beds light and dry. See various hints and suggestions on this subject, in previous volumes and numbers.

Sweet Potatoes.—Plant your main crop of “sets” and “draws” this month. If you plant in hills or ridges, plow the soil *very deep* and throw them up broad and flat on the summit so that they may catch and retain as much moisture as possible. Potato “draws,” or any similar plants may be safely set out even in dry weather, by dipping the roots in a thick batter of black woods-mould, or surface soil and water, as heretofore described.

Irish Potatoes, if not already planted, must be put in immediately, or it will be too late for a summer crop. They should be dropped 10 inches apart in 3 feet drills,

and covered with a thick layer of partially decomposed pine straw or leaves.

Chinese Sugar Cane, for syrup, should be planted as soon as the weather becomes settled and warm—a little after Corn planting time. The people of the West, where the climate is not so favorable for this plant as with us, are planting it largely for the production of syrup and fodder.

Sow, also, Egyptian Millet, but do not let it come near the Chinese Sugar Cane, or you will ruin the latter as a sugar plant. Early crops of the Cow Peas may also be sown. For fodder, we prefer to sow them in the drill; but if intended to turn under for manure, sow them broadcast. Common Corn may, also, be sown in the drill for forage.

THE VEGETABLE GARDEN.—Attend to all work not performed last month, without delay. Set out all Cabbage plants, you may have, and sow more Cabbage seed to head in the summer; Flat Dutch is the best. Thin out Turnips, as soon as they have four leaves, and sow more Turnip seed; Early White Dutch and Red Topped Dutch are the best for spring use. Also sow the White Norfolk Turnip; it will grow larger than the former and succeed them. If you have not already sown Onion seed (black,) do it at once; they will come into use in the latter part of the summer, when all that were raised from the sets or buttons are gone. If you did sow black Onion seed last fall, it can now be transplanted. Sow Carrots, Beets, (Extra Early is the finest,) Parsnips, Salsify, Lettuce, Radishes, Thyme, Parsley and Rape (for early greens.) The White Belgian Carrot stands our hot summers best. Also sow Mangel Wurtzel; it will be found very good for late use, when the other beets are gone. Plant all in rows 18 inches apart. Sow, also, a little spot with Celery and protect the plants from the sun. When Cherry trees are in bloom, plant Snap Beans; Early Valentine is an excellent variety, and we are inclined to recommend it in preference to all others. When Apple trees are in flower plant Squashes (Scallop Squash is the best) in hills 3 feet apart; also, Cucumbers and Muskmelons 6 feet apart; the Nutmeg and Citron Melons are very fine and the earliest; Beechwood Melon is very superior, but a little latter. The Persian Melon, or “I-pahan,” is an

excellent variety, too tender for the middle States, but does well here. All vines are greatly benefitted by guano or poultry manure, applied in a liquid form, often, but not too strong. At the same time, also, sow Okra, Tomatoes and Egg Plants. Hill up Rhubarb. Asparagus will now begin to sprout; do not suffer any to run up to seed, but cut all down.

Watermelons may now be planted in hills 10 feet apart, using leaf mould, ashes and poultry manure liberally in the hill. There are so many different kinds and varieties that we will not undertake to decide as to the best.

Plant a full crop of English Peas, for a succession. For a late crop, we think the "Blue Imperial," and the "Prussian Blue" the best; when planted at the same time as the "Extra Early," they will come in three weeks later.

THE ORCHARD AND FRUIT GARDEN.—Young trees, if properly planted and trimmed, will need no stakes; but if they are inclined to blow about in the wind, tie them up to a firm stake with a stout and broad strip of cloth—tailor's "listing" or selvedge" is excellent for one season. Should the spring be dry and warm, they must be immediately "mulched" heavily (as directed for Roses below,) and watered, through the mulching, from time to time. Do not delay the mulching beyond the middle of April, at all events. It is one of the most important operations connected with tree culture in the South.

Spare the birds in your orchard and gardens—they are your best friends—they "pay their rent," not only in music and in the delight which they afford the eye and the heart, but also in the destruction of myriads of rapacious insects. As a further protection against predatory insects, hang up a number of wide-mouthed bottles, half filled with molasses-water, in your trees—you will catch a great number of them.

THE FLOWER GARDEN.—Propagate and set out Dahlias—plant the seeds of all hardy Annuals—mulch your Roses with a thick layer of leaves from the hollows of the woods, sprinkling a little soil over the mulching to keep the wind from blowing it away—transplant Evergreens of all kinds, *just as the new growth is commencing*—the only proper time. Clean up and roll your gravel walks—dress your borders—tie up all herbaceous flowering plants to stakes of cypress or China tree wood, and put everything in trim for the season.

If Annual Flower seeds have not been sown, do so at once; work the soil deep, and enrich it well—poultry manure is excellent; all Stocks and Gill Flowers are highly benefitted by it.

A LECTURE ON HEREDITARY BLOOD IN Man and other Mammalia; in the University of Georgia.

BY DANIEL LEE, M.D., TERRELL PROFESSOR OF AGRICULTURE.

[Concluded from our March number, page 66.]

Whatever evils result from the intermarriage of first cousins are due mainly, if not exclusively, to diseases, and bodily deformities in parents, which are common to both sexes. Thus, if a father and mother alike inherit a scrofulous diathesis from their progenitors, the malady is likely to be somewhat intensified in their offspring. The

congenital blood derived from both parents tends to the same tuberculous affection; and as cousins are more often subjected to common antecedents than those not at all related, it is easy to understand how more cases of disorders, both of body and mind, should sometimes exist in their children than those free from all parental consanguinity. Hence, more caution to avoid unhappy marriages is necessary where first cousins are disposed to wed, than in other cases; because both may have some anatomical or functional defect in the brain, nerves, heart, or blood vessels, in the lungs, the organs of digestion, of secretion, or excretion, which forbid the parties to intermarry. But where both are healthy and sound in all respects, no injury whatever can follow their union. The propriety, or impropriety of consanguinous intermarriages is a matter for the parties most interested, and their friends to decide, and one in which no legislature has a right to interfere. It often happens that persons not at all related by blood being brought up in the same district, living much alike, and exposed to the same malarious poisons, or the same exciting causes of consumption, are strongly predisposed to the same maladies. In cases of this kind, the injuries from improper marriages are not less marked and permanent in their character than are injuries in the offspring of blood relations. Like produces like, not less where parents are not related by blood, than where they are so related.

What is most needed is a knowledge of physiology that will enable the masses in all civilized communities, to remove from their blood, and especially that which is to become parental, every constitutional impurity and weakness. The art and science of preventing diseases in the human system, and in domestic animals, are matters of great importance. It is the office of the blood to repair the waste which is ever taking place in all parts of the body by the removal of elements no longer capable of supporting life. The sanguineous system also operates, with the aid of the lungs which are a part of it, to maintain that natural warmth of the body which is generally known by the name of animal heat. This circulating fluid is not less active in conveying to the various outlets of the system all effete substances to be separated from the living organism. Thus, the air expelled from the organs of respiration, carries with it 100 times more carbonic acid gas than it contained when inhaled into the lungs. Much vapor also escapes into the atmosphere in the same way. Sensible and insensible perspiration discharge through the pores of the skin fatty matter, nitrogenous compounds, and various salts held in solution. The quantity of organic and inorganic elements removed through the function of the kidneys is still larger. The most important elements in the feces of the mammalia, and especially man, are derived, not directly from the food taken into the stomach which has never left the alimentary canal, but from matters poured into this lengthened organ near its outlet, from vessels adapted to remove the waste tissues of the system. The great work of ever building up, and of ever taking down this wonderful living edifice, can not be seriously disturbed without affecting injuriously its vital fluids. Physiological science has disclosed the fact that when one takes into the stomach an excess of soluble, or of digestible, nutritive matter, this excess passes in part directly into the blood where it is not needed to repair any waste that exists, and where, by its presence, it creates an engorgement of the capillary tubes, and cells in the excretory, and other organs, giving rise to gout and other arthritic affections, to diseases of the liver, kidneys, ossifications of the heart, and causes the functional derangement of the brain and nerves. Far more systems are injured by improper eating than by improper drinking.

Not only is it possible to pour into human blood an excess of all the elements of nutrition, but every person is

liable to have in this vital fluid an excess of only one or two useful substances, and a deficiency of all the others. Again, there may be a fair supply of some elements, and a deficiency or an excess of others; or there may be a general and equal deficiency, causing emaciation, and ultimate starvation.

Now, the improvement of live stock, and the improvement of civilized man, as well in reference to his conscience and reason as to his physical organization, have a common basis in sound vitalized blood. No wise man would hope to propagate, from generation to generation, in the human heart and mind, either a profound sense of right and duty, or great intellectual powers, in badly diseased bodies, laboring under incurable hereditary maladies. Hence, our daily food and drink, the air we breathe night and day, the houses we live in, and the clothes we wear have a direct and important bearing on our blood, our thoughts, morals and character. Society has become exceedingly prone to vicious, sensual indulgences. That self denial which is taught alike by the Bible and by Science, has fallen sadly into disrepute. Virgil expresses a great truth in three words, when he says:

"Facilis descensus Averni.

"Easy is the descent to Hell."

Civilization must reform its dietetics and its morals, or its vices, crimes and follies will ere long exterminate the whole human species. Commercial cities scatter the seeds of contagious maladies everywhere among civilized nations, and all uncivilized people. Evil customs, habits and fashions spread much farther than any natural, or physical pestilence, on the wings of the wind. Educated, thoughtful young men are the persons to inaugurate, by their example and their social influence, a better state of things.

It is evident that whatever improvement is attainable in human blood as appertaining to a race or family, must take place before this blood becomes parental; for a change for the better after that time will not influence the condition of issue already born. In consonance with this suggestion is the well-known fact, that in the earlier stages of the existences of all living beings, whether animal or vegetable, their growing parts and functions are most plastic, and susceptible of melioration. "As the twig is bent, the tree's inclined." Every possible improvement in all agricultural plants and animals, and in all persons, which extends beyond the individual, to the succeeding generation, must not only be early impressed on the vital organism, but the impression must be deep enough to affect sensibly the after current of the living principle. Otherwise the impression will be as evanescent as the disturbance on the surface of smooth water by the fall of a pebble upon it.

To maintain and perpetuate any improvement in man, or in his live stock, the same agencies that cause the change for the better must be continued in active force, or a relapse is inevitable. If one were to treat the greatly improved short horns, devons, or other English breeds, the same as their progenitors were treated five centuries ago, they would not only fall back to the condition of the native cattle of that era, but for a time become poorer, from their comparative inability to subsist on scanty and coarse forage, and their acquired tenderness of constitution. The bovine aristocracy of the present day have not all the physical and vital hardiness, which breeding animals ought to possess. Their food for many generations has contained an excess of oily particles, and of fat producing substances. John Bull has rather overdone the feeding part of good breeding. As fat race horses cannot run in competition with those properly trained, breeding mares and stallions have been more skillfully managed in propagating horses for the turf in England, than the stock animals belonging to any other species. Without a frame

and constitution, vigorous and sound in all respects, it is idle to hope for any substantial progress in animal power or vital function. The life of a species is not to be trifled with. Great Nature has her own laws, which man must study, and learn to obey. So far as this is done, a satisfactory reward may be expected. It is the end and aim of all agricultural science to increase human knowledge of the primary principles and elements of husbandry, tillage and farm economy. Before one can surround every plant and animal, cultivated or grown, with all favorable influences, he must know what are the requirements of these living objects of his care, and sources of his profit. Not to understand what they need, places one much in the dark how to treat them. For instance, about eighty per cent. of the blood of all mammalia is pure water; and the muscles of man and those of his domestic animals, contain about seventy-five per cent. of this abundant constituent in all organized beings. Not to supply persons and live stock with plenty of pure, wholesome water is to commit a great error in their management. It is, however, possible for animals to drink more than health demands, especially when it has been too long withheld. In the humid climate of England, where turnips are fed largely to stock which contains some 90 per cent. of water, it is not uncommon for cattle and sheep to take an excess of water into the system to the injury of their blood. In the South and West both cattle and hogs often poison their blood and have what is called cholera in some sections, and a disease in cattle known as "black tongue" in other districts, which, I have pretty good reasons for believing, are the effects of eating poisonous mushrooms. These fungi have been uncommonly abundant the past year, and wherever cattle and hogs have had a wide range, or have had access to these plants, they have consumed them with avidity. My own, I think, have been somewhat injured by them.

The every day food and drink of man and beast receive less attention than they deserve, to secure good health, and prevent deterioration. It is impossible to unite all the freedom of wild animals with all the advantages of high cultivation. Savages sometimes attempt this, but they rarely fail to reap far more of the evils than of the benefits of civilized life, so long as they retain their primitive habits and associations. The half civilized people of this or any other country need the light of science more every year, in their own minds to protect themselves from the impositions of misapplied science in the hands of dishonest men. Where great skill and much learning are used to produce an attractive counterfeit, it may require greater attainments to detect and expose the fraud. Many scrub animals of no pedigree, and of no extra value, have been sold to ignorant farmers as pure blooded stock, and at ten times their value. Many worthless seeds and fruit trees have, in like manner, been palmed off as something extraordinary in their character.

Patent manures, and patent machines have become very numerous, and demand a knowledge of first principles for one to judge of their value. In short, a cultivator of the soil can hardly take one step in the improvement of his servants, horses, mules, cattle, hogs or sheep, nor in the improvement of his crops and land, in safety, without considerable study and reflection. The intrinsic value of Blood depends very much on a man's knowledge how to use it.

A steamship that cost a million dollars would be worthless to one who could not sell it nor use it for some good purpose. It is a remarkable fact that many a youth does not appreciate the value of the parental blood in his own veins, and much less that in the veins of others. This want of just appreciation operates to prevent any high achievements except in rare instances. Thousands neglect their own duties, and proper education, in a vain and silly dependence on the wealth, position and Blood of

their parents and relatives. Important and useful as aids to farhigher efforts to attain honorable distinction, where they serve to satisfy a low ambition, and prevent due personal exertion, they are a hindrance to progress rather than an dvantage. Steady and persistent self-reliance often wins the high prizes of society and government in competition with the oldest and best blood in the land. A steed may excel in natural powers of muscle, wind and bottom, yet if he never runs, nor wins a race, the world will hardly give him credit for capacity never exhibited. Talents that remain forever as barren as a dead fig tree, might about as well have no existence. It cannot be less important to improve one's intellectual gifts, whatever they may be, than to improve horses, neat cattle and swine. To do this, a regular system in all studies, and thoroughness in the mastery of scientific priciple, are suggested for your consideration.

In conclusion, I will only add that you will probably be happier as well as wiser men through life, if you soar to the heavens in the pursuit of knowledge, instead of creeping on the earth in search of riches.

BREEDING AS AN ART.

ANIMAL and vegetable life left to itself, seems to be subject to a general law, that continually re-produces itself in the same form in which it originally appeared. The hardy crab, gnarled and thorny, is the same in the western prairies, as on the eastern hill-sides—the same now as it was a thousand years ago—the same now it was when the stars sang together. Left to itself, it is unchangeable. But subject it to the control of man, and the rules of art, and the aërid, worthless crab, swells into the princely Baldwin, and Golden Pippin. The change is slow, and the result of much care and labor. It must be taken from the forest and planted in better soil. Competing trees and hungry weeds must not steal away its nutriment. With careful and generous culture, the fruit will be enlarged, slight deviations in flavor will appear to the critical and careful observer. The best of these must be planted and reared to bearing, and the best again selected, and so on, until the highest perfection is attained.

Precisely the same law obtains in animal life; and those animals and birds that are domesticated, have been, and can be, greatly and permanently changed by the breeder's art, in color, form, qualities and disposition. The changes you desire will perhaps seem slow, but will be certain if the rules of art be steadily followed. But first of all, the breeder must have a clear and distinct idea of what he wants to breed, and this should be determined by the soil on which his animals are to be reared, the climate they are to inhabit, and the use to which they are to be put. For instance, the Durham, so admirable for the shambles and so well adapted to the luxuriant pastures of Kentucky and the prairies of the west, would probably find the rugged and scanty pastures of many parts of New England, insufficient to develop his rapid growth, when the same pastures would easily sustain the lighter, more agile and hardy Devon. Because a breed of animals are adapted to, and profitable in one location, it does not, therefore, follow, that they will succeed equally well in other places, with a different soil and climate. The skillful breeder, who pursues his object by the highest rules of art, must thoroughly consider and decide on the result to which he wishes to attain. Does he wish to increase the size of a breed? This, perhaps, is easy. But is it wise and will it be profitable? We should have no difficulty in increasing the size of the Devon or Morgan; but when you have increased the size will you have the Devon stree, and the Morgan horse? What you have gained in size, you may have lost in symmetry, compactness, ease of motion and vigor.

The question of size is of the greatest importance in

breeding, and one in regard to which the inexperienced breeder is very liable to mistake, and the more so, as committees and agricultural societies often foster and encourage erroneous opinions on the subject. A great calf or colt, if very fat, is likely to get a premium—all can see that the colt or the calf is large, but all are not critical judges, and under a load of fat but few are capable of pointing out the defects in the animal. It is probable that every departure from the medium size of a race of animals is attended with some loss of power, or at least that the medium size of the race should not be departed from, except to raise animals for special purposes. The draft horse for heavy weights must be heavy. But he will be slow, and will not have ease and grace of motion, nor will he have the iron hardihood and endurance of the medium sized horse.

L,

[in American Stock Journal.

CHAMPAGNE WINE--SOME CURIOUS FACTS about it.

WHERE one line has been written in America about champagne, an hundred baskets have been drank. It is, *par excellence*, the fashionable and the favorite wine of the Americans. It is always on our dinner tables—we call for it from the frescoed ceiling of our New-York-hotel dining-rooms, till we reach the outskirts of our Western wildernesses. We call for it in the cabin of the steamship, no matter on what ocean she is floating—we drink it at the head-waters of the Missouri, at the cataracts of the Nile, at the sources of the Amazon, on the vales of the La Plata, and at the falls of the Ganges. If there be a good genius in wine (and a thousand inspired odes to Bacchus have said there was) that good genius lurks under the champagne cork. It is a wine better suited to our climate than any other, for it has the inimitable gift of creating an impromptu inspiration; and even when used with hardly justifiable freedom, the mists which it scatters over the memory are more readily dispersed by a few hours of balmy slumber, and the invigorating breath that comes with the pure air of the rising sun.

And yet we have taken very little pains, and had very little curiosity, to learn the origin and history of this unrivallied accompaniment to the scenes of joyousness and luxury that brighten and embellish our social life. We will furnish such a brief history of champagne wine, as the frnit of our observations in the champagne districts of France, where all the champagne of the world that is genuine is made, can give. Champagne is an artificial wine. Perhaps it would be better to say a compound wine; for in no instance is it the simple juice of the grape, corked up after fermentation. It may, when well made, be quite as pure; but certain elements are combined in the manufacture of a fine champagne, for which we depend solely upon art. Therefore, the quality and flavor, and the value of champagne, always depend upon the flavor of the ingredients used in the manufacture, the processes by which it is carried on, and the skill with which it is perfected.

There is no champagne of reputation that is made without being composed of a mixture of the wines of various vintages, or vineyards.

All the champagne wine worth speaking of in the world comes from the Champagne district, which is about thirty miles long and from one and a half to three miles broad. The river Marne flows through the whole district, augmented by the numerous tribute streams that come rippling down from the circumjacent hills. This is the only district of France where grapes are grown which produce a juice specially adapted to a champagne wine. There is, indeed, the sparkling hock of Germany, and the *vino d'Asti* of Italy, both of which have, in a natural state, some of the qualities, especially the effervescent ones, of champagne. But, in no part of the world have soil,

science, labor, or capital, combined with success to produce real champagne except in the beautiful valley of the Marne. There are the favorite spots for growing the champagne grape—as famous as the vineyards on the south side of the island of Madeira, which from the period of the Romans, has been known as the chief seat of that delicious grape which make Madeira. So, too, along all the southern slopes of Spain and Italy, and through the extent of the Mediterranean, between the bases and the summits of the hills, where neither the moisture of the valleys nor the chills of the mountains interfere with the genial and delicate process of maturing the luxurious grape.

It is well known that the flavor of all wine, in a natural state, depends upon the chemical qualities of the soil, the dryness or the moisture, the heat or the cold of the atmosphere, and other natural causes, which in the invisible and beautiful operations of chemistry, produce these results. The odor of the flower depends not alone upon the species, or even the family to which the plant belongs. Some species, by being, transplanted, change their perfume; and some have been known to lose it altogether. It is one of the nicest and most delicate and difficult problems in agricultural chemistry, to ascertain how the highest flavor or odor can be infused into the plant, or the flower.

In the Champagne district, as well as in many other vineyard regions of France, and other wine countries, the grape is cut down, within from two to twelve inches of the ground, every year after the vintage is gathered, and the sap has retired to the root. Our vine-dressers in America may learn a lesson from this.* If we would cultivate these varieties of grapes, this pruning should be thoroughly done in the fall. This is true of all grapes which produce their fruit from the new growth of the stock exclusively, and why all the pruners should cut everything down to near the surface, leaving only the eyes, from which the germs of the next spring will burst.

Our American readers must not fancy the Champagne district to be one of the warm blushing valleys of the south of Italy. This district is in the latitude of Canada, and they have cold winters there. So, when the process of pruning the grape in the fall is finished, the remaining stock is protected sometimes, and all the grapes that are to be grown next year, must come from the new shoots. When thus cared for, the grape vine takes to growing in the root, and these roots elongate themselves sometimes for enormous distances. In Italy, and in some other portions of Europe, we have seen grape vines run immense distances, with branches lopping down and rooting again, and still growing with the utmost luxuriance, when the parent stock itself had rotted off above the ground from which it grew. Thus it is no uncommon thing in Italy to find grape vines that have been in the soil, probably for ages, producing from the original root or branches that sprung from it, without transplanting, for a period of 500 years. This fact is so well known to students of Oriental history, that it grew into a proverb at least four thousand years ago, when in "the good time coming" of the prophets of Judea, it was declared that every man should "sit under his own vine and fig tree, having none to molest or make him afraid."

Some grapes attain their perfection in four, five or six years. This is the case generally with the champagne grape.

The champagne grape produces from one to half a dozen bunches on every stock, except in poor years, as they have recently experienced several in France. But there is no relaxation in setting out new plants, or forcing the yield, whether it be a good or bad year. Neither

science nor experience has yet been able clearly to ascertain the causes of failure of the grape crop.

The champagne grape matures later than many other varieties, chiefly because it has greater acidity. The champagne vintage begins about the 20th of September, and ends by the 15th of October. This period there, resembles the season of cotton picking in the South, when the whole force of the district is called into requisition, and they work on night and day. In both cases, the labor must be done quick, for a heavy storm, or a long period of damp weather, would produce ruinous consequences, leaving the grapes so wet that, even if ripe, they would become mouldy and musty, and the exquisite aroma be utterly destroyed.

Great care is taken in the process of getting the juice out after the grapes are gathered. They are brought in baskets, and, on being delivered, are carefully looked over by the hands in the establishment, when the best clusters are placed in large tubs, containing one or two hundred pounds each. These grapes are purchased by the buyers of large establishments, who are always on the spot, with their orders or money. When a sufficient quantity is collected, they are carried to some place in the neighborhood where they are pressed; and thus a fair experiment is made, and the result known. The juice is then sold to the larger dealers. But recently the more common mode has been for the large manufacturers of champagne to send their agents out through the grape districts, to purchase the grapes themselves and do their own pressing. They thus find that they can produce a greater uniformity of quality, and assimilate their different wines into a more perfect compound. The present manner of pressing grapes does not differ essentially from what we call, in New England, the old fashion cider press. On a platform of from four to twelve feet square, the grapes are thrown into what cider-makers will understand as a cheese; and through the orifices in the bottom and in the sides of the press, grapes will, by their own weight, exude the first juice, which is of course the purest and the best, not being mixed with any impurities that come with the clusters when impregnated with any of the bitter or obnoxious flavor of skins or stems. In any vintage the juice gained by the first process is the finest. But the juice of the grape has to be produced by artificial pressure, which forces it out, and although sometimes differing in color—the coloring matter being chiefly in the skin of the grape, since the juice of nearly all grapes is very much alike in appearance—it is perfect.

Very little of the champagne that we use is made from the first quality of juice. It never could be manufactured and sold for the prices of a sham article. It is dealt in only by houses of the first reputation. Most of the champagne drunk in America comes from suspicious quarters, and we may be very thankful when we get the fruit of the grape: for, except in rare cases, we are sure to be deceived.

The juice of the grape being thus collected into a thousand or ten thousand pipes, the fermentation must first take place. This is completed in a few days, when the taster of the establishment (no mean personage) goes through, and ascertains the amount of acidity on the one side, and saccharine matter on the other, in every cask. Which ever quality is lacking is supplied at once by adding sugar in the one case, and wines of a different quality in the other.

It is a nice process to determine and regulate the flavor, the bouquet, and the body of the champagne wines. It is well known that manufacturers of the greatest experience and reputation, have had more faith in learning to discriminate in the natural qualities of different vintages of the champagne wine, than they have had in the application of chemical ingredients of an artificial description. Thus the wines of different fields, or even different vint-

*This system of close pruning will not do for our native American Grapes.—EDS.

ages, are successfully combined by skillful tasters, who thus produce a result finer, perhaps, than could be reached by the production of any one vintage whatever. The taster is the man upon whose judgment the process depends.

Thus, when the mixtures are complete, the wine is put into large vats, containing from a thousand to five thousand bottles, where it remains until it is drawn off. By this time it has perfected itself as far as it can, when it is put into bottles and deposited in the coldest cellars that can be made. When the spring comes on, the second fermentation of the wine takes place, and this is often attended with a heavy loss by the breakage of bottles. But those which stand the racket are then carefully wired for a year or two, and laid down flat, when a sediment gathers on the lower side of the bottle. The bottles are afterwards turned to stand perpendicular, and shaken every day, until the sediment which forms comes to the top, leaving the wine clear. After this period the bottle is not disturbed until the final process is reached, when this sediment must be got rid of, and it is to be done by a rapid and skillful movement.

The string is cut and the cork goes off with a pop, and with it all the sediment that had been collected. Then a small per centage of the finest crystallized sugar, with from one to three per cent. of the best brandy in the world, is added to supply the vacuum made by that small portion of wine which escaped. The bottle is instantly corked firmly, and the wine is ready for exportation.

The reason for putting same sugar in, is to overcome the asperity, roughness, or even bitterness, which might be detected in the best vintage by a fine palate; and this infinitesimal quantity of brandy is added as a corrective, to produce a chemical whole, combining and blending all the elements together. A powerful machine drives the cork home, and thus, from five hundred to ten thousand bottles a day, pass through a great establishment. The government of France reported last year something like sixteen millions of bottles exported. The German States consume five millions, while England takes only about six hundred thousand; France, Belgium, and Spain, consume but two millions; other smaller nations in the aggregate use but two, and the balance comes to the United States.

It will thus be seen that we drink more champagne in America than all the rest of the world put together. Every quality of it is sent here, and almost any quantity without labels, that each dealer will put on what label will best suit his customers, varying the price as he can make it, for it is absolutely within our own knowledge that we have drank champagne of all prices and all brands, at the same table, when there was but one quality of champagne under all the brands, and that of the most infamous description.—*Democratic Age.*

THE STUDY OF FARM ECONOMY.

EDITORS SOUTHERN CULTIVATOR—Dr. Lee, on pp. 17, 18 and 19, devotes a rich article to the above subject, and it is well handled; yet pardon a less skillful, a less scientific friend of yours when he dares to differ. I here give you where we differ, and will leave it to the experience of others to decide.

I take his last paragraph, the last subject, “making winter butter.” Now, sir, I will not dare to say my house-wife is any smarter than a great many others; yet I do affirm that we have on our table, the first week in February, as pretty yellow butter and as rich flavored as you will find, usually, in many, aye, the most of families even in May. I admit it is not so rich in color or flavor as May butter is here, and ought to be elsewhere. If you will provide field peas, corn and turnips, I will agree to show you good looking and good butter any month in the year. We

are now cooking a few cotton seed, say 1 gallon to each cow, with meal and turnips daily, and our butter is as I say. I have known this done by my old mother, a native of Maryland, “forty years ago.”

I read, with pleasure, what our Dr. says about Bermuda Grass, and I endorse fully, “the best grass on the farm is Bermuda.” I have seen hay from it, and some 100 or more of as pretty cattle, Ayrshires principally, on a pasture as I ever saw in Kentucky, even on the farm of H. Clay himself. I believe, on land good for forty bushels per acre, that Bermuda will feed more horses or cattle, from 1st of April to 1st of October, than will the same quality of land in Blue, Orchard or Timothy, in Kentucky or Virginia. I know all these grasses, but more of Bermuda. Fifty acres of fair land, well set in Bermuda, 50 choice Devons of 2 years old, with winter pasture, would be an income sufficient to educate a large family.

Keeping Sweet Potatoes is another matter we shall differ upon. I have housed sweet potatoes some twenty to twenty-five years, and seen them housed by my father many years before I left my nativity. I have lost more potatoes this season than ever before, and it is “the cry” in more than one-half the families I have visited. I had potatoes planted in three fields, with the intent of giving the largest portion to hogs. In Oct, I saw there would be a scarcity at best, so I dug before frost, the field in corn, perhaps some six or eight acres, so I could give the pea field to hogs before frost. They were banked as usual, level off land, lay down corn stalks about three inches thick, cut all off to a circle of say six to eight feet in diameter, land slightly elevated, place in the centre a box six inches wide, six feet long, holes bored in sides from top to bottom, bank up potatoes all round compact as possible, until raised near or about five feet high to a point, then put corn stalks all around, some four inches thick and bank earth about as thick; leave hole in box open until freezing weather, when a little more earth may be put on the heap. No boards, no roof. I have put up potatoes in a rain, have known many bucket of water thrown on after being bulked, but never lost potatoes as the present year.

I have a potato house, have seen them for “some forty years” or less, and would rely upon them sooner than on banks. I have seen hundreds of bushels lost from one house, because too warm and too tight, seldom when open enough.

In 1842, I visited a planter down in Louisiana in March and saw a house about 16 by 20 in which the hands were overhauling the potatoes, and there was not a bushel unsound to 250 bushels.

I visited a gentleman, over 70 years old, this season in Mississippi, a native of South Carolina, and saw his potato house. I will describe it; the best I have seen, as it was very neat and all snug. The house about 12 by 16 and 9 feet high. Framed and weather boarded, covered with shingles.

The sleepers were, say, 6 inches deep, with a sill under each end and the middle, under side lined with plank, filled in with saw-dust and floor laid down. No cold air could pass up.

The walls were ceiled with rough plank about 5 feet high and filled in with saw-dust. Rough boards nailed to upper joists and the gables left open. A 3 feet pass way from door to window in the rear; on each side were 4 bins, made of inch plank, not touching, in which I saw as pretty potatoes in February as I ever saw in October. The house excluded air pretty much, yet neither too warm, nor would it be too cold in cold weather; in fine weather the door and window was to be opened, with a half door to be shut, so as to keep animals from entering.

The greatest thing to fear is too much warmth. Sweating will do no harm if there is an absorbent. I have been

used to banking and housing 50 to 500 bushels per year, all my life—shall I say 50 years—and there is no more need to put potatoes up in sand, &c., &c., than in washing them before you put them in the ashes to roast, the best way to cook them after all—oh, for the days of ash cake and roast potatoes. This world of ours loses many good things in getting refinement. The man who sighs after ash cake, old-fashioned johnny cake, roast potatoes, corn dumplings, jowl and turnip tops, is too old fogy to read after; but I am not of that stamp. I go for roast beef, plum pudding and champagne, with a \$160 per thousand cigar—might as well talk big, it costs “noffin.”

Yours truly,

LYNCH'S CREEK, S. C.

February, 1858.

GUANO FOR ROLLING COTTON SEED.

EDITORS SOUTHERN CULTIVATOR—While the best mode of applying guano is undergoing investigation, whether broadcast or in the drill, each of which plans having its advocates, permit me to suggest a mode of using it, with which I am well pleased, and recommend as worthy of attention to cotton planters. Mix together two sacks of best Peruvian Guano, with one barrel of Plaster of Paris. In this, when properly moistened, rub your cotton seed, preparatory to planting. By rubbing the seed we are able to sow them with greater regularity, and, if the opinion of Dr. Washburn, of Yazoo City, is correct, it will prevent the lint on the seed from producing the destruction of the young plant, so often seen to occur in fields after the cotton is up, and it will impart a vigor to the young cotton, which is uncommon, and noticeable all over the field. This healthy and vigorous growth of the plant facilitates its escape from the young grass, and enables you to use the plow much earlier, and by its warmth or stimulating properties it is better fitted to contend with those enemies which are the offspring of the damp and precarious weather of spring. I mean the *lice*.

Rubbing cotton seed, or rolling, as it is sometimes called, is an old practice—in the days of “Auld Lang Sine.” My father, who was one of the pioneers in the cultivation of cotton in South Carolina, always rolled his seed; as guano was then unknown as a fertilizer, he used unleached ashes, and applied the plaster in the drill, which he had to boat off from Charleston at heavy cost and then have it ground in a mill for use. The practice was then approved of, and time has not changed that opinion with me.

One of our neighbors, by the bye, a very practical agriculturist, Col. Jonathan Davis, the father of Dr. Davis, the importer of the Cashmere Goats, used to steep his corn in the sweepings of the horse yard, which, as he then said, gave it a vigorous growth and protected it against the cut worm and the crows.

If these suggestions, as well as those of Professor Ras-pail, the eminent French Chemist, be reliable, and we are inclined to attach much importance to it, the addition of water in which aloes is dissolved to the guano and plaster before the rubbing the cotton seed might be the means of effectually driving away the host of insects which so often blight our prospects and send us away disheartened in pursuit of new homes, or new occupations. As long as “Cotton is King,” and its production gives vitality to our Southern institution, it is our imperative duty to aid in its successful cultivation by any and every means, however humble, in our power.

J. E. PEARSON, M.D.

Vienna, Ala., Feb., 1859.

 Modern drainage of is one of the offsprings of those laws stumbled on by experience.

GIN GEARING---LEVERS, &c.

EDITORS SOUTHERN CULTIVATOR—I will endeavor, in a few words, to demonstrate the fallacy in Mr. Knox's article on Gin Gearing; and to prove that no lever applied to a shaft, has any advantage over a straight one passed through its centre.

Thus. Suppose, instead of *one* straight lever you have *twenty*, radiating from the shaft like bars of a capstan or the spokes of a wheel.

These being of equal length, are, of course, of equal mechanical value.

Now, fill up all the space between these spokes, so as to constitute a solid wheel. It is perfectly clear that any one point on the circumference of such wheel will have the exact leverage of any other point.

Select, therefore, *any* point on this circumference and carve out a lever of *any shape* you please, it is self-evident that you do not, in any manner, alter the leverage

Suppose you cut one straight; another like a letter S; a third like a “cant-hook;” a fourth like a “helix,” passing any number of times around the shaft. In each of these different forms, you stand exactly “as you were”—the straight lever being the measure of your gain in power and having the advantage of less weight and less work!

In short, to gain power over the shaft you *must* lengthen your lever in an absolute mathematical straight line; and not, as Mr. K. proposes, (practically) lengthen your lever and then reduce it to its original length, by a crook, or elbow!

The cant-hook is a great convenience where you have not a hole in your log into which you can thrust a long stick, or a projecting limb to revolve it by. The mechanical power in all three cases, being identically the same.

A hand-stick thrust under a log acts a little differently, tending to lift, or move forward the whole mass, instead of simply revolving it on its axis. But a cant-hook when applied, is in the exact position of a lever fastened at right angles to the axis of the log. Its value is in the clamp which so fixes it; and its power can only be increased by lengthening the handle.

Mr. K. might crook a lever till he reduced a mile's length into the space of fifteen feet, and he would then have a fifteen-foot lever for his pains.

How he gained a *fifth* by the cant-hook principle is probably explained by his (and his neighbors') mules resting during the alteration!

With regard to the line of traction there can be but one rule.

The extremity of the lever traverses an invariable circle; the mule that walks in that identical circle, will transmit the most power.

Are not these things so?

February, 1859.

T.

PLASTING STUMPS.—The *Ohio Cultivator* relates the experience of W. A. Gill, of Columbus, Ohio, in clearing a field of stumps by gunpowder, which really appears to be a most powerful “stump extractor.” He cleared a stumpy field of twenty acres cheaply and expeditioesly, the following plan being pursued for each stump:

“Select a solid place in a large root, near the ground, and with an inch and a quarter auger, bore in, slanting downward, to *es* near the heart of the base of the tap-root as you can judge; then put in a charge of one or two oz. of powder, with a safety fuse, and tamp in dry clay or ordinary tamping material, to fill the hole, some six inches above the charge; then touch fire to the fuse, and get out of the way. The blast will usually split the stump into three pieces, and make it hop right out of the ground. If the charge is put in too high up, the blast will only split the top of the stump, without lifting it.”

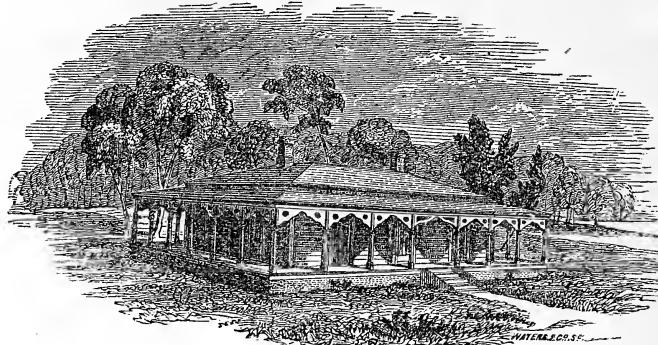
RURAL ARCHITECTURE.

We copy the following illustrations and descriptions from an excellent little treatise entitled "THE HOUSE," elsewhere noticed:

"This differs widely from all our previous designs, and

indicates its adaptation to a different climate and different social customs and habits. Its principal features are the veranda, which extends on all sides, and the broad hall running through the center. This hall furnishes access to every room, and facilitates a free circulation of air through the house. The living-room and the large bed-

Fig. 1.



A SOUTHERN COTTAGE—PERSPECTIVE VIEW.

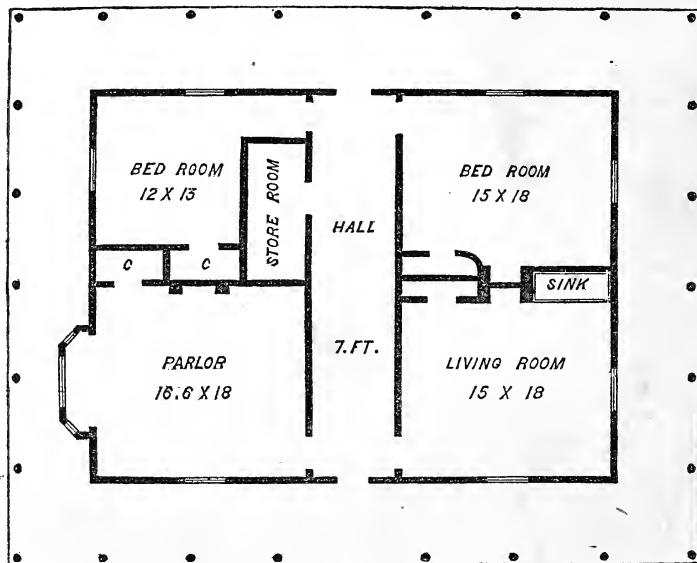
room may change places, where the situation and aspect render such a change desirable. The bay window adds much to the beauty and comfort of the parlor, but may be omitted, if considerations of economy require.

The elevation is plain but not unattractive, and, in its

external features, very distinctly expresses its character as a Southern dwelling.

This will be found a comfortable and convenient home for a planter of small estate and means, or for an overseer on a large plantation. Its cost will vary much in

Fig. 2.



GROUND PLAN OF A SOUTHERN COTTAGE.

different parts of the South. Built of wood, as represented in our perspective view, from \$650 to \$700 would perhaps be an average estimate.

VERANDAS.*

The veranda is an essential feature of the Southern

*In this country a veranda is often improperly called a *piazza*. The latter is properly a more solid structure, and is defined as a continued archway or vaulting, supported by pillars."

house. It should extend the entire length of two sides, at least, and it is better that it should encircle the whole building. It may, however, if desired, be either wholly or partially enclosed on the north side, forming small rooms under its roof. There should be ventilating hooded apertures in the roof of the veranda for the escape of the heated air, which otherwise accumulates under it.

The next example is much more pretentious and ornate and is styled

A SOUTHERN VILLA.

This house consists of a large center and two wings, connected by two covered arcades of one story each. It is entered under a veranda 12 feet wide, which extends the whole length of the front, and is also continued around each side of the projecting portion of the center. The entrance door leads to an elliptical vestibule, 10x17, hav-

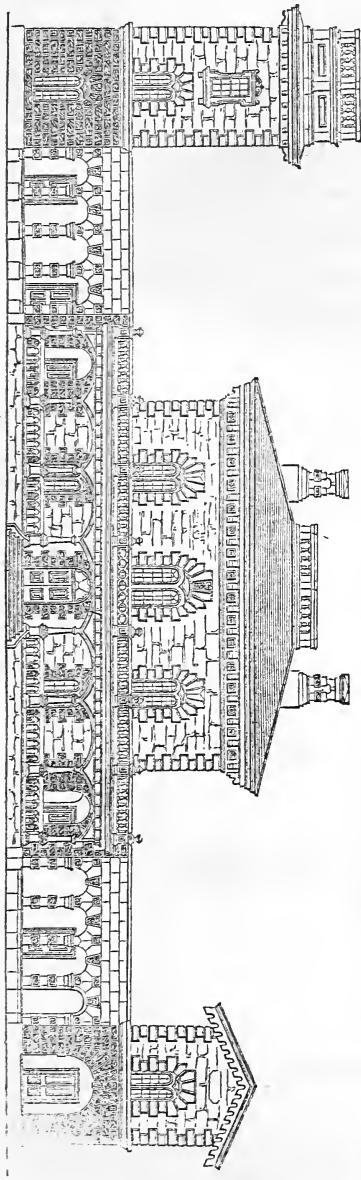


FIG. 3.

SOUTHERN VILLA—PERSPECTIVE VIEW.

wings. The center and wings at the rear of the building are also connected by two open arcades in the manner shown. Passing across the hall, we find the principal stairs, consisting of three flights—a central flight leading to the first landing, and two return flights, one on each side of the central, each of which return or side flights lands upon the chamber floor. The staircase is 14.0x17, and the entrance to it may be richly ornamented by means of two pilasters or columns supporting an arch above. Passing on towards the rear of the building under the first landing of the stairs, we find two closets to the right, and under the first landing a door leading to a gentleman's dressing-room, 10x12.6, with closet attached; and at the opposite side of the landing we find a door opening upon a lobby which leads to one of the arcades at the rear of the building, before noticed. Returning to the hall, and proceeding along it to the right of the principal entrance, we find a dining-room, 16x28, lighted by a large window at the end; it is octangular in form, and by making it of this shape, four closets are obtained at the

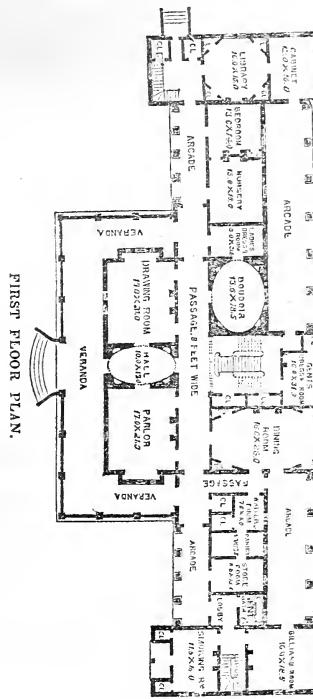


FIG. 4.

FIRST FLOOR PLAN.

angles, as shown. This room has three doors, one opening upon one of the arcades at the rear, another opening to a passage which communicates with the waiter's room, and the third opening to the hall. The waiter's room, is 7.6x9, and communicates with—a small closet; a pantry 6x13.6; and a store-room, 8.6x13.6; the store-room has also a door into the front arcade. Continuing our progress along the arcade, we find, immediately after passing the store room, a lobby which leads to a gentleman's bath room, and also communicates with a staircase in the right wing of the building. Two doors open at the bottom of this staircase—one to a billiard-room, 16x18.6, at the rear of the wing, having a closet under the stairs before alluded to, and with a door opening upon one of the rear arcades; the other door at the bottom of the stairs leads to a smoking room, 11.4x16, which has also a door communicating with the arcade in front. Two closets are attached to the smoking-room, with a door between, opening upon a platform occupying the space between the closets, extending to the front of the wing, and covered so as to form an open recessed space from the

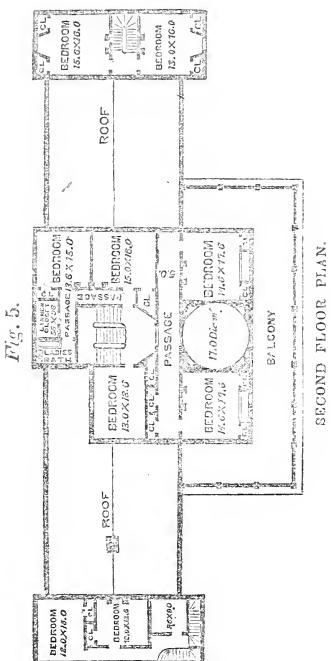
ing four niches for statuettes, vases, etc. The vestibule opens on the right into a parlor, 17x21, and on the left into a drawing-room of a like size. Each of these rooms is lighted by two windows, of which those at the ends of the rooms are projecting. The vestibule at its farther end leads into a hall 8 feet wide, which extends across the whole central portion of the building, and being continued outside of the center at each end so far as to embrace the veranda, terminates in an open arcade which leads to the

front wall of the wing, which admits of smoking in the open air.

Proceeding again along the hall, but to the left of the principal entrance, we came to a boudoir, 13.6x8.6, elliptical on plan, with four niches as in the vestibule, and for similar purposes; the boudoir opens into a lady's dressing-room, 8x13.6, which last is also entered from the hall. Succeeding this is a nursery, 13.6x16, communicating with a bed-room, 13.6x14, which is also entered from the arcade. The arcade terminates at the remaining or left wing of the building, with which it communicates by a door which leads into a large lobby, containing the stairs to the chamber floor, and two closets, between which is a side entrance door. This lobby leads to an octangular library, 16x16, which communicates with a cabinet, 12x16, from which a door opens to the left arcade at the rear of the building.

The second or chamber story is divided as follows: two triangular spaces are taken off the second landing of the principal stairs, in such a manner as to preserve the symmetry; the landing is thus converted into a semi-octagon, and this process, in conjunction with that of narrowing the hall to five feet, enables us to obtain a number of closets, which are appropriated as shown on the plan. The entrance from this landing to the hall may be ornamented in a manner somewhat similar to the lower entrance before described.

A passage commencing at the landing on the dining-



room side, leads to two bedrooms over the dining-room, that next the passage being 13.6x15, and the other 15x16; these may be made of equal size, if preferred; each has a closet attached. The passage turns at right angles, leads to a linen press, and terminates at a lady's bath-room. Bedrooms are also obtained over the parlor and drawing-room, each 16x17.6 and over the boudoir, 13x18.6. All these bedrooms have closets attached, leaving two closets opening from the passage, unattached to any bedroom, and which may be applied to whatever purpose may be thought advisable. A circular room, 17 feet diameter, is located over the vestibule; this room, with a circular table in the centre, covered with rare shells, bijouterie,

etc., and with statuettes or vases in the niches, may be made to assume a very rich and ornamental character.

The windows to the parlor and drawing-room, to the bedrooms over them, and to the circular room, should be French casements opening to the floor, so as to allow access to the veranda and balcony.

Two bedrooms are also obtained over the billiard and smoking rooms; the former 15.6x15, and the latter 13x15, with closets to each; and two more bedrooms, with attached closets, and an additional large closet, are provided over the library and cabinet; that over the library being 12x13.6, and that over the cabinet 12x13. The stairs to the tower are situated along the external wall of the building, over the two closets before mentioned, as shown on the plan.

Access to the flat on the roof may be obtained by a step-ladder, which may be removed when not in use; or, what is still better, a flight of stairs may be constructed in the space occupied by the two closets adjacent to the bedroom over the boudoir, and inclosed by a door so arranged as not to interfere with the symmetrical appearance of the hall. Should this latter method be adopted two or three bedrooms may be formed in the roof, and lighted by skylights from the flat.

The style is Italian. The quoins, the window and door dressings, the chimney tops, and the arcades are proposed to be of stone; the remainder of the external walls of good, square, well-burned brick. The quoins and window dressings to the first story are to be of the kind of work commonly known as rock-work; that is to say, the stones are to be first hammer-dressed, then truly bedded and jointed; and lastly a margin draft chiselled off the outer edges of the external surfaces; this draft should be about two inches wide, leaving the remainder of the external faces rough from the hammer. It is also proposed to execute part of the mason work of the arcades and of the wings in this style; but the portions of the elevation in which it is proposed to introduce this description of stone-cutting are sufficiently indicated on the engraving. The quoins and dressing to the second story are to project from the face of the brick-work, and to have the angles chamfered off. A good idea of the remaining features of the elevation will, it is presumed, be obtained from the engraving.

DISUNION AND ABOLITION!!!

[AS SEEN THROUGH A PAIR OF VERY KEEN YANKEE SPEC-TACLES.]

We seldom allow the *Cultivator* to dabble in anything that even resembles the "dirty waters of politics," but one of the vital issues of the times is so forcibly and fairly presented in the following, from the *Providence (Rhode Island) Post*, that we cannot withhold it from our readers. Our Eastern friend characteristically heads his article:

THE DOLLARS AND CENTS IN THE CASE.

We have more than once said, and we think we have proved, that a dissolution of the Union would injure the business interests of New England more than any those of any other section of our country. The "statement of the case," as the case is presented to our mind, is simply this: We now receive from the South our cotton, our tobacco, our rice and sugar, and not a little of our corn and lumber. In exchange for these we send to the South a large amount of manufactured articles—cotton and woolen goods, farming implements, mechanic's tools, machinery, boots, shoes, jewelry, notions, nick-nacks, &c. The exchange is profitable to us; first, the articles received cannot be produced at the North. We cannot produce corn enough for home consumption. Again, it is profitable, because we must have the Southern markets for our

manufactures. And, finally, profitable to us because the exchange of products is made in our own ships.

Should the Union be dissolved, there can be little doubt that, finally, all the Western and Middle States would go with the South. The West would follow the Mississippi. The Middle States would follow their commercial interests. New England would stand alone. Even without the Middle States, however, the South would have immense advantages over the North. Everything which she produces is wanted in England; and in return for her products Old England could send her, at lower rates than she is now paying, everything which is now sent her from New England. She could thus at once "make terms" with England—while New England, producing nothing for export which Old England does not also produce for export, would be left to trade with herself.

Let the Union be dissolved to-morrow, and in thirty days every manufacturer in New England would be bankrupt—three-fourths of all the banks would have to wind up their affairs—nearly all the railroads would be without the power of declaring a dividend in the next twenty years—a hundred thousand mechanics would be thrown out of employment—and a full half of our shipping would be rotting at the wharves.

This is one view—a very fair view, of the first consequences to the North of a dissolution of the Union. Let us now ask what would be the consequences of the immediate abolition of slavery at the South, admitting no harm to the Union, politically, to result from it?

There are, we will say, four millions of slaves at the South. Would these remain in the States where they are, if slavery should be abolished? All intelligent Southerners assure us that they would not. The fact that they could not be profitably employed as freemen—at least for the next thirty years—is plainly apparent. Even allowing that they would remain peaceable, and could be safely entrusted with the privileges of citizenship, it is very certain from the moment they became their own masters they would produce much less than they do at present. They would become burdens to the communities in which they resided, and thousands upon thousands of them would be driven North. In exchange for them, the South being forced to depend less upon cotton growing, and finding it necessary to manufacture to a greater extent the articles now purchased at the North, would import Northern laborers, mechanics and manufactures. In twenty years, if we are not deceived, the South would manufacture her own shoes, hats, clothing, furniture, stoves, machinery, &c., and millions of dollars, which now annually flow North, would be kept at home. The moment the cotton plantations of South Carolina and Georgia felt the depression which inevitably result from universal emancipation, that moment would the shoe-makers of Massachusetts and the weavers of Rhode Island feel it also. The justice and reasonableness of this inference is admitted in the following which we find in the *New York Evening Post*:

"Suppose," says our New York namesake, "that the Southern States could once rid themselves of slavery; the effect would be that the North would almost immediately stand still. The fertile soils of the South; its more attractive climate; its noble harbors and navigable waters, its vast uncultivated fields, would invite a rush of people from the free States, and turn the course of the emigration from Europe to the region below the Potomac. The growth of the free States of the West, now so rapid, would be checked at once; its rising villages would cease to augment in population, or augment but slowly, and that rise in the value of land, on which the settlers now count so confidently and with so much exactness, would not happen."

The purpose of the *Evening Post*, here is to convince the South that she would add to her wealth by abolishing slavery; but who does not at once perceive that, even could this result be realized after many years of confusion,

it would cost the North in wealth, all that the South could possibly gain?

We are not contending that slavery should continue to exist, or cease to exist as it is found profitable or unprofitable to the North. We only throw the right and wrong of the institution out of the argument for the purpose of showing the falacy of four-fifths of the arguments which are offered to Northern men by abolition demagogues. These demagogues tell us that the North is wealthier than the South; that our merchants and manufacturers and mechanics have grown rich while the South has stood still. We do not deny the fact. We only ask, from whence came this wealth, and how long could it be retained if slavery were abolished?

"Slavery may be a great outrage against humanity. We look upon it in this light, and have no defence to offer for it. But we remind Northern men, not only that the North clung to while it promised to be profitable and kept up the traffic in human flesh long after a cold climate and unproductive soil had sealed its doom in its own section, but that Northern merchants and Northern mechanics and Northern manufacturers are dependent on it to-day for their stately ships, their immense store-houses, their splendid dwellings, their paying railroads and their reputation for thrift."

CHARRED CLAY AS A FERTILIZER.

Messrs. Editors:—Know that a large number of the most intelligent landholders and farmers in all parts of our extended country read the *National Intelligencer*, I should be pleased if you can find room for a few practical suggestions addressed to them pointing out the value of Charred Clay for the improvement of impoverished farming lands.

In all districts where the great staples, cotton, corn, wheat, and tobacco, are cultivated, experience proves that it is exceedingly difficult to prevent the deterioration of the soil. Extensive areas being ever under the plow, tillage soon consumes the vegetable mould, heavy rains wash and leach the stirred earth, and the crops being uniformly sent to distant markets, it is easy to understand how all these operations remove fertility from all cultivated farms, and diminish, from year to year, the resources of the cultivator to prevent the final exhaustion and abandonment of his long arated fields. To make stable manure enough to meet the wants of our Southern plantation economy is out of the question, and to purchase guano, bone dust, or other commercial fertilizers is equally impracticable for the million. The mass of mankind must ever look to the earth where it is cultivated for the food of agricultural plants; and as good clay contains more of this food than any other part of earthy matter, its economical development is a point in husbandry of the greatest importance.

Heat, wisely employed, is unquestionably the most effective and powerful agent known either to science or art for eliminating the insoluble elements of fruitfulness in any soil or rock where they exist. The ancients, who built and peopled cities of such dimensions and splendor as to be a marvel to all after ages, understood the utility of artificial heat in agriculture far better than we do in the middle of the nineteenth century. Virgil alludes to an old and well-known practice in the first book of his Georgics, where he says:

"*Sæpe etiam steriles incendere profuit agros.*"

"Often it is advantageous to burn sterile fields."

Southern Planters shou'd bear in mind the fact that this maxim had its origin in districts contiguous to the Mediterranean, where the climate matures the olive, orange, and pine-apple; and therefore where solar heat is by no means a feeble power in all tillage processes. It was probably by slow degrees that man learned to roast his cof-

fee, *bake* his bread, *boil* his vegetables, and *cook* his meat; and, if so, it is by no means wonderful that he is somewhat slower in learning the value of heat in preparing food for his domestic animals, and in using it generally to effect those chemical and physical changes in soils which increase their fertility. Unable to see what takes place in roasted earth, and wholly unacquainted with the play of chemical affinities as modified by heat, farmers have often injured clay by over-burning it. Nothing is easier than to spoil coffee by the application of too much heat; and to burn bread or meat is not to bake either properly. These remarks are intended to illustrate the fact that there is an art in the use of fire for different purposes; but that which applies to the due charring of clay is less than what is required to generate steam and apply it successfully to the propelling of ships on the ocean or locomotives on railways. I regard the application of heat to the two last named purposes and its known power to extract iron from the crude ore, and caustic soluble lime from the comparatively insoluble mountain rock, as true types of its equal availability to work the most important chemical changes in nearly all poor soils. Summer fallowing, which has been practised for indefinite ages, exposes tilled earth, in a peculiar manner, to the influence of solar heat during the hottest part of the year; but as the natural heat of the sun will not roast coffee nor bake bread, neither will it decompose the debris of felspar and mica in common clay fast enough greatly to improve poor land. Partial calcination does this under favorable circumstances, by liberating potash from its before insoluble silicates.

Sir Humphrey Davy, Liebig, and other eminent chemists have expressed the opinion that the charring of clay increases its capacity and aptness to absorb ammonia from the atmosphere, and in that way augment the fertility of impoverished fields. Dr. Voelcker, Professor of Chemistry in the Royal Agricultural College at Cirencester, England, wisely brought this explanation to the test of experiment, and found that clay, in its natural state, imbibes from the air considerably more ammonia than it does when charred. Dr. Sprengel, a distinguished German agricultural chemist, taught his readers that heat probably converted the protoxide of iron in clay into a peroxide, and decomposed water in the process, its hydrogen combining with nitrogen to form ammonia, which was retained by the porous clay, and its oxygen uniting with the iron to change it into the red rust of that metal. The carefully conducted experiments of Dr. Voelcker, at the agricultural college, fully corroborated by experiments in the field, did not sustain this ingenious theory. In analyzing clays of the same locality and original composition, both before and after torrefaction, Dr. V. found that properly roasted clay gave nearly *four times* more potash than it yielded to water before it was acted on by heat; and at the same time the carbonate of lime dissolved out by water acidulated with hydrochloric acid was considerably lessened by charring. Further researches proved that a double decomposition in the clay had taken place; lime that was before combined with carbonic acid had left it, and united with silicic acid, forming an insoluble silicate of lime. The potash that was before chemically united with silicic acid in an insoluble condition, and, therefore, not available as food for plants, being set free, united with the carbonic acid from the lime and formed common pearlash or the carbonate of potash, which is a very soluble salt.

These experiments and results teach us how unsafe it is to depend on the mere theories of great men, like Davy, Liebig, and Sprengel, where the momentous interests of agriculture are involved; and how important it is to have agricultural colleges and experimental farms, where every scientific opinion entitled to investigation and every new

practice in tillage or stock husbandry may be fairly tested by disinterested and competent persons.

It will, I fear, extend this article to an inconvenient length if I undertake at this time to describe what agricultural clays are best for manure and the most economical way of roasting them. If the subject, which contemplates the improvement of many millions of acres in the United States, be deemed worthy of a small space in the *National Intelligencer*, I shall be happy to present its readers with a summary of all the important facts developed by the joint labors of cultivators and men of the highest scientific attainments. In this country we have yet to learn the wisdom of rigidly applying the inductive system of reasoning to the consideration of agricultural phenomena; and hence, with all our mental culture and activity, we achieve next to nothing for the advancement of the science of agriculture. We accept for scientific truths the idle speculations of attractive writers on rural affairs; and, finding them to fail when reduced to practice, all book knowledge in farming and planting is brought into disrepute with the honest cultivators of the soil.

D LEE,

[in *National Intelligencer*.]

CHINESE SUGAR CANE.

A correspondent of the *Farmer & Planter* remarks very sensibly :

Mr. Editor :—No foreign plant has ever been introduced into the country which has swept it with such a "furor" as the "Sorghum Saccharatum."

Incredible has been its attributes. It was to make good sugar, good syrup, good brandy, good beer, good flour, good dye-wood, and good paper, &c. It is one of our American peculiarities, to always expect too much of a good thing. One virtue is never sufficient—it must claim every one under the sun. We are optimists, and the moment we find out that our sanguine expectations are not going to be realized, we get into a pucker, and denounce it all as humbug.

Careful experiments, made by distinguished chemists during the last year, have settled the point that the Sorghum belongs to the family of grasses which secrete "glucose," or fruit sugar—not crystallizable or cane sugar. The value of cane sugar compared to glucose, or grass sugar is as 3 to 1. We may give up, then, the hope of making sugar profitably. Carefully-conducted experiments, during the last year, however, have satisfied the writer that a very good syrup can be manufactured at the rate of 50 cents per gallon, and for even less, by the small farmer who is not entirely engrossed with the cotton crop. This will prove an inestimable blessing, bringing it within the means of almost every farmer owning a horse and an acre of ground, to provide their families with a luxury.

But the great value of the Sorghum rests not in its syrup-making qualities, but in its being, for all animals, one of the cheapest, most delicious, and nutritious article of food; particularly during a season of the year when a scarcity prevails. The period between the small-grain harvest gleanings and the pea crop, is a very trying one; and my friend, Maj. W. S. Lyles, asserts, from carefully-conducted experiments, that land planted in sorghum will pay better in food for hogs, horses, mules, and cattle, during the autumnal months, than anything else.

If a few acres of sugar cane—even on the best land a man has—will keep his stock out of his corn cribs until the pea fields are open, and start them into winter quarters in good order—fat, sleek, and contented—there is no telling its value.

Don't get alarmed, and cry, humbug! but try it again; try it as a part of the farm crop—as an investment, not as fancy a experiment—and you may rest assured it will pay.

GLUCOSE.

LIME FOR COTTON, &c.

Editor of "South Countryman"—Dear Sir:—In order to test the value of Lime, as a fertilizer, when applied to cotton, I selected from a stubble field of fifteen acres—five acres decidedly inferior in quality to the balance—and during the second week of February last, without previous breaking, laid off the rows with long, straight shovels, three feet apart, returning in the same furrows, so as to make deep trenches. These were filled with wheat straw partially decomposed; unslacked lime was deposited in small heaps at the end of the rows, at convenient distances apart, for distribution, and seventeen bushels applied to the acre, regularly and evenly distributed over the straw. The ground was immediately bedded out in full. A few days before planting, two sweep furrows were run between each row, and fresh dirt thrown over the entire row. The seed were sown between the 10th and 15th of April, in a furrow opened down to the straw, and covered with a harrow. The stand was imperfect, in consequence of faulty seed. The yield, eight hundred and twenty-five pounds to the acre; I am satisfied from previous experience in the cultivation of the same ground, that without the application of the lime, the yield would not have exceeded six hundred pounds per acre. And in addition to the increased yield of the past crop, I anticipate equally good results from the coming crop.

The lime was applied at so late a period that the straw was not fully converted to manure, and in consequence the past crop failed to receive the full benefit of it.

The great desideratum of planters in this section, is to secure some agent that will push forward the young cotton plant rapidly in the spring, and, as a consequence, to early maturity. Our cotton growing seasons are too short for the full development of the plant, except in extraordinary years like the past; hence the necessity of using some means to supply, as far as practicable, this defect in the climate, by pushing the cotton to early maturity.

I am fully convinced, from the small and imperfectly conducted experiment by me, that lime will supply this desideratum. Its cheapness and facilities of transportation, place it in the power of farmers of limited means, to improve their lands, and thereby increase their crops; and the permanency of its effects, saves the expenses of annual outlays.

Yours, &c.,

CHARLES N. MAYSON,
[in *South Countryman*.]

Kingston, Cass Co., Ga., 1859.

STOCK RAISING IN THE SOUTH.

DANIEL LEE, M. D.—Dear Sir:—In the December (1858) number of the *Cultivator* I see an article under the head of "Stock Husbandry at the South," which I suppose is from your pen. I have long been of the opinion that sheep raising, in this and adjoining counties, might be made profitable, and your article has determined me to attempt it. With this view I write you, hoping you will give me such information as is within your reach, and such directions as will enable me to go to work not entirely without some landmarks that will be of service.

The citizens tell me that they never have, as yet, fed a sheep in this county through the worst winters that we have had, and that, when undisturbed by dogs, they are very prolific, seldom dying. The breed are rather small, I think, yielding from 2 1-2 to 5 lbs. to the fleece, and can be bought from \$1.25 to \$1.50 per head. The wool sells this year for 20 to 22 cents.

My object is to know what number of sheep would pay to have a shepherd? And how many might be kept in a flock, healthy, living, as I propose, upon the range for a support? And would it pay or not to introduce some of the finer grades and yet depend upon the range for a support?

I propose to buy first as many as will be profitable for one shepherd to tend and keep healthy, and move them every few days to another range. I own an interest in 42 lots of land in this and adjoining counties, and can keep them moving all the time, making 12,580 acres of land, which, I suppose, would be a pretty good sheep walk.

If you know of any gentleman that would wish to engage in the business, who has capital and experience, and would like to try the experiment in this section of the country, I would be much obliged to you for the reference. I would be willing to drive them West if the experiment did not succeed. I will give you reference (without permission, however) to the Hon. Peter E. Love, Hon. A. E. Cochran, Hon. C. B. Cole, and my county generally for what I profess. I am a practitioner of Medicine in this county, with a property worth \$5,000 or \$6,000, the most of which I would be willing to engage in the enterprise.

Please write me where I will be able to find Mr. Morrell's "American Shepherd," and other works that you think would be of service to one engaging in the business.

If you think it advisable, you may arrange an advertisement and put it in the *Cultivator* for such a length of time as would suffice to call the attention of any one who would like to invest in such a scheme as I have spoken of.

Our county will never be so thickly settled that the business might not be carried on profitably, in my opinion. The soil is too thin to induce large farmers to plant in cotton with a hope of making it remunerative in this county. The time may be when, by a proper manuring system, the cultivation of any crop might be profitable, but not so long as the fine cotton lands of the South-West, with their natural fertility, remain unworn. And, again, the surface of the country is too low for thorough drainage, and the ponds and bogs would make the opening of a large farm too expensive, and from that reason it will remain (as it is) a poor man's county, and only the high elevated ridges be settled, while the Savannahs, bays and ponds will ever remain as pastures, and of the finest kind for sheep.

The citizens tell me that sheep generally (except in very wet and cold winters) do much better in the fall and winter months than summer upon these savannahs and ponds, and if they should ever want feeding, it is only in the commencement of spring.

With a hope of soon hearing from you, I remain

Yours most respectfully,

HENRY J. SMITH.

Homesville; Appling Co., Ga., 1859.

In treating of sheep, in his learned and instructive work on the "Domesticated Animals of the British Islands," Prof. Law, says that the ten million migratory sheep in Spain give employment to fifty thousand shepherds. This is at the rate of one shepherd to 200 sheep. It is not improbable, however, that the race of shepherds in that Kingdom, has increased somewhat faster than their flocks; so that this peculiar class of people, who have their own laws, customs and usages, handed down from time immemorial, might now tend two or three times more sheep than they have in charge. Surrounded by good fences, on cultivated farms, and in well settled districts, sheep require very little more looking after than cattle; but in open, and wild stock ranges, or sheep-walks, they soon invite wolves, dogs, foxes and other vicious and destructive animals, to prey upon the weak and the young in

large flocks, if not upon the strong and the vigorous. Hence, shepherd dogs, men, women and children have been, for ages, bred up to the business of watching and guarding this, the most peaceful and helpless domestic animal kept by man. One good shepherd, with three or four children to assist him, aided by dogs, will take care of 2000 sheep. In shearing time he will need the labor of men skilled in clipping wool from sheep in a neat and workman-like manner.

Pains should be taken by sowing grass seed to increase the natural supply of herbage for the support of flocks wherever they are kept. Their manure, dropping constantly on these out pastures, will steadily enrich the soil from year to year, and thus augment any given power of support that a given area may originally possess. Land so barren of herbage in a state of nature, as barely to support one sheep on ten acres, may, in time become rich enough to keep, under wise management, ten sheep to the acre, or 100 on ten acres. A few years ago, before dairy husbandry became so profitable in the State of New York, it had one sheep to every two acres of improved land and more than one to every cultivated acre, in addition to all the horses cattle and hogs, and all the people, supported on the comparatively few acres enclosed in the State. The more sheep one keeps, the more wheat, corn and cotton he can raise on his farm. If animals naturally impaired the fertility of land, it would soon cease to produce either plants or animals.

Animals as well as plants tend to enrich the soil that sustains them; and both are endowed with the function of multiplying their numbers to keep this advancing fruitfulness of their parent earth in a self-supporting condition. Neither the wheels of time, nor any of the movements of Nature, ever take a retrogressive course. To be in harmony with her laws, we must maintain on the soil we cultivate a just equilibrium between her two great living kingdoms. Planters are apt to forget this fundamental principle, in seeking to grow in perpetuity, commercial plants without either sheep or other live stock, and without commercial manure to rejuvenate their tilled fields. Let them grow wool as well as cotton for export, and produce all the manure practicable from sheep husbandry, and then it will not be difficult to maintain the true balance in organic nature as between plants and animals. No man can make the half of a thing equal to the whole; and no wise man will long try to do so.

The same causes which are creating such an unusual demand for cotton fabrics throughout the world to meet the wants of a rapidly advancing civilization, create also an equally increased the demand for woolen fabrics.

When a servant girl has eaten what food she needs, her hunger is satisfied; but when does her desire for new dress and new patterns of gay cotton prints, rest satisfied, so long as she earns money to pay for more? And do not journey men tailors, and others in a similar condition in life, often wear finer woolen coats than the richest noblemen in England? The only limit to the consumption of woolen and cotton goods, is the productive power of the countless millions, over and above what is needed to feed them. This

power of production is augmented in each individual, every year, in a thousand ways, by new discoveries, new inventions, and new facilities of transports; so that Great Britain, with cotton and woolen mills and steam, equal to the labor fifty million persons, beats us ten fold in the creation of wealth. It is time that we studied the science of agricultural and mechanical production. We possess all the elements of national of wealth and prosperity to a much greater extent than Great Britain. Why, then, may we not use these elements?

MORRELL's work, RANDALL's, and others on this subject, may be obtained from A. O. MOORE & CO., 140 Fulton street, New York.

L.

CULTIVATION OF THE CHUFA OR EARTH Almond.

We have received a communication from a valued Eastern correspondent, upon the merits and culture of this newly introduced tuber; and though not intended for publication, we take the liberty of appropriating so much thereof as we believe will interest those who are desirous of experimenting with this new acquisition to our best swine feeding products. The almost universal acknowledgment of its excellent feeding and fattening qualities, and general productiveness in all soils adapted to potato culture, or indeed in soils so poor that a fair crop of potatoes could not be expected, has given to the Chuifa a celebrity never before obtained by any newly introduced vegetable in so short a time.

So wonderfully prolific is it upon soils even of medium quality, no one need hesitate to attempt its cultivation who desires to grow at the least possible expense, the largest quantity of an excellent feed for swine and poultry. Here are the remarks of our correspondent:

"Having cultivated the Earth Almond for three seasons with a view to the fattening of hogs at a cheaper rate than upon corn, the result of my experience is this:—I believe that many a farmer who now owns land so poor that he neither raises corn or peas equal to a fair average crop of the country, if he would plant but an acre with Chuifa, would realize more of a truly fattening product for his herd of hogs, than he could possibly obtain from two acres of any other product at the same cost.

"My second year's crop on the same ground was more than double that of the first, and the last season's crop quite equal to both of the proceeding, and this without any re-sowing of seed or cultivation of the land beyond what was given it by the noses of the hogs in rooting out the tubers. I am confident also that land is actually enriched by their growth and mode of harvesting if performed by swine, and they kept upon the land night and day; the decomposition of the tops and the manure from the hogs more than making good the loss to the soil, by the mere consumption of the tubers. The fear with many, is that in growing them upon an already fertile soil, they may prove difficult of eradication when once established. I have no fears of this; I find that to turn them in deep with the plow, at a season of the year when the bulk of the tubers have attained to half their growth, will destroy the greater part of them; another shallow plowing or severe harrowing two or three weeks afterward, will effectually subdue the remainder.

"I would plant them at first in drills, two feet apart; this enables the cultivator to be run between the drills till the Chuifa gets a start, after which it will take care of itself; I would give the tubers a distance of five or six inches in the drill; but if the soil be rich, eight inches will answer, and plant at the proper season for planting Indian corn; this, of course, applies to our country of

frosts and snows. In California as in the Southern States, it doubtless might be planted at almost any season and vegetate successfully."

"The taste of the Chufa is hardly inferior to the best chestnut, which it much resembles. Poultry are quite as fond of it as hogs, but cannot do their own harvesting; but turn the hogs upon the Chufa patch and a most remarkable attachment of the hen to the hog's nose is immediately observable, and being quick of foot, and keen in their perception of the delicious, soon retire with their crops filled almost to a surfeit. As a cheap and nutritious food for swine and poultry, the Chufa has not its equal"—*California Culturist.*

HABITUAL COSTIVENESS—ITS CAUSER, Consequences and Cure.

EDITORS SOUTHERN CULTIVATOR—Were it possible to notice a national sin without a passing shoulder at its national punishment, we might extract from our essay all the consequences of habitual constipation.

Should I offer the reader to the advertisements of the pillars, who have only failed to mention one of the very worst and most national to write "Habits?"

Or to his own record of symptoms?

Or to the average sanitary report of his neighborhood,—"Poorly, thank God!"

From each and all of these he may gather a Pandora's list, ranging from a bad breath to a premature interment, inclusive; which will leave us more time to state the cause of this "deaf," and its natural and "every man his own physic," cure.

Habitual costiveness, then, has its rise in an early and habitual neglect of the monitions of nature. She hath kindly left us a margin in the matter of "time—when"—and we have abused her kindness beyond all reason.

Neglect in infancy, neglect in childhood, neglect in youth, neglect at maturity, neglect (not in old age, but) in decline!

Yet, in all these stages the evil is curable, and curable in one way alone.

An earnest, persistent, daily effort, though often defeated, will at length, never fail to propitiate her whom we have offended, and to restore the bowels to their natural sensibility, the ground work of their healthy action.

This is all.

But there is a great deal in the way!

Laziness, business, want of proper accommodation, and gross ignorance and neglect on the part of those who have the care of youth.

The Romans had their Temples to Cloacina. Ours might be dedicated to all the infernal gods at once! There is a point at which human repugnance becomes invincible, and that point, my dear sir, lies within a few rods of your thousand dollar carriage-house! Nature must back her orders with the point of a bayonet before any man who has an alimentary canal will trust it in that inhospitable region! No wonder that many prefer to become peripatetic stercoraries themselves! This is a national nuisance; intolerable and not to be endured. The savage is better off.

I designed a gentle hint to Boarding Schools before concluding, but not having the club of Hercules, and nothing gentler that will do, suggesting itself, I will refrain. I will ask, however, whether any reward of merit is conferred on those who most assiduously cultivate their gifts of continence in this particular? for many of their *elders* with whom my profession has brought me into contact, have made a merit of it! and it has seemed to me that it was solely because they had never been taught any better; for they gladly adopted the advice (no physic) given them and *got well directly!*

I have now to make a small apology to some of your

readers, whom I will address generically as Miss Nancy.

We have the concurrent testimony of two sublime Philosophers, one of either sex; Dr. Johnson and Mrs. Partington; that "the indelicacy of a thing lies a good deal in the way you look at it;" and I will add, for Miss Nancy's benefit, that the affected delicacy with which she looks at things, is to a sensible man a sign of pruriunt imagination; which to a physician is a symptom of the disorder which I have treated of. Therefore, and also for her benefit, I have spoken in plain words, and only put in a few long ones by way of emphasis.

O.

February, 1859.

MEASURING CORN IN BULK.

EDITORS SOUTHERN CULTIVATOR—In answer to the correspondent, "W. C. K." in relation to the rule for calculating the quantity of corn in bulk, I may say that, upon a careful consideration I cannot see any incorrectness in the rule that would materially affect the result. It is a thing that cannot be tested in a perfectly scientific manner; but rules sufficiently exact for practical purposes, can be constructed.

For SHUCKED CORN—It is proved by experiment that corn shells out half its bulk in the ear, (or never less.) Then finding the cubic feet in a crib, by multiplying the 3 dimensions together; a cubic foot is 8¹⁰ of a bushel, (14-10 inches over, which is too small to effect a practical result,) and multiplying the cubic feet by 8¹⁰ we have the bushels in shucked corn, then taking half for corn in the ear, we have what the corn would shell out net. Drilling by 3 will reduce the bushels to barrels. Then 8¹⁰, 1-2 and 1-5 multiplied, give 8¹⁰⁰ of a barrel for 1 cubic foot; multiplying the cubic feet by 8¹⁰⁰, i. e., by 8 and cutting off two figures, will give the barrels as nearly correct as can be estimated in such things.

The example of "W. C. K." 30.159 feet multiplied give 2700 cubic feet in the crib; multiplying 8, and cutting off two figures we have 216 barrels.

Taking 2700 (which applies anywhere) and multiplying 8¹⁰ we have the bushels; taking half we have the shelled corn, dividing by 3 we have 216 barrels, as before, showing that the rule is founded on the same principle. The rule seems to apply to the example of "W. C. K." as accurately as any other rule could.

I think the rule for unshucked corn is liable to too many errors to be considered as reliable.

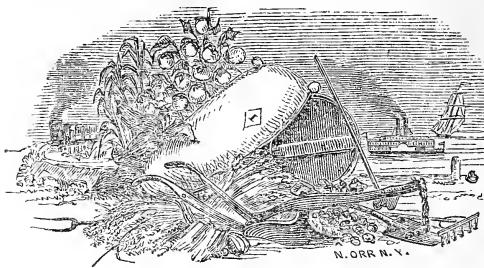
Yours, most respectfully,

WILLIAM P. BRADFORD.

Danburg, Feb., 1859.

CONSTANT IMPROVEMENT—Every farmer should be constantly "fixing up" his barns, stables, and yard fences—constantly adding to the comfort and conveniences of his domestic animals and their attendants—constantly improving in neatness, cleanliness, efficient shelter. Ricks for fodder, and troughs for meal, are easily made at this time of the year, and frequently save their cost several times over, by keeping hay from mud and meal from waste. Every field should have a good gate to enter it, and these gates may be constructed in winter by every ingenious farmer who has a workshop and a few simple tools.

"NIGHT SOIL"—Mr. Liebig, the chemist, writes: "I am firmly of opinion that if England wishes to remain an agricultural country, she must use as manure the night soil, and similar residues produced in large cities. This necessity would be increased in the event of a war with America, when the supplies of guano would cease. The price of corn [corn," in England, means wheat, oats, &c.] depends upon that of guano, and it is most unnatural that, in a country like England, the production of corn and meat should be so dependent on the supplies of foreign manure.



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., NO. 4: APRIL, 1859.

ANSWERS TO CORRESPONDENTS.

TEXAS LETTER.—A. M.—Greatly obliged for the valuable information you send us, and hope to hear from you hereafter.

BERKSHIRE HOGS.—S. G. J.—Any person having Berkshire pigs for sale will address S. G. Jenkins, Silver Run, Alabama.

MAGNOLIA TREES.—J. H.—The best time to transplant *Magnolia Grandiflora*, and most other evergreens, is in the spring, just as the new growth is commencing.

CORN AND COB MILLS.—N. J.—We do not know of any Mill that will do all you require. You may, however, address any of the Agricultural Implement dealers whose advertisements appear on our cover.

UTLEY'S PLOW AND STANFORD GRASS.—P. S. M.—We do not know the holder of the Patent for North Carolina. Address, Grey Utley, Greensboro, N. C. The quantity of Grass Seed you want, sent per mail, will cost about one dollar.

"MORELL'S AMERICAN SHEPHERD."—J. W. E.—Send \$1.50 to A. O. Moore & Co., 140 Fulton street, New York City.

HOLLYHOCK SEED.—H. M. L.—We have none of the desired seed. Write to J. M. Thorburn & Co., 15 John St., New York City.

UTLEY'S PLOW.—P. S. D.—This Plow, in its *improved* form, cannot be sent out until the autumn of 1859, and we believe the right for Texas is yet held by the Patentee, Grey Utley, of Greensboro, N. C.

SOUTHERN AGRICULTURAL IMPLEMENTS.—W. P.—Our good friend and correspondent, Dr. M. W. Philips, with Z. A. Philips and Robt. Kells, have a Factory at Jackson, in your State, (Miss.) and can doubtless supply you. Address Philips & Kells, Jackson, Miss.

WHEAT, RYE, OATS, OR BARLEY.—C. L.—We rather prefer Rye—though we have known Wheat sown in drill to give an excellent yield. We would advise you, also, to try "Stanford's Wild Grass." It must succeed in your section.

"WORK ON GARDENING," &c.—J. E. H.—The price of White's "Gardening for the South" is \$1.25, per mail, paid. Send us 95 cents more, and we will forward it.

DISTEMPER IN SHEEP—GRASS, &c.—H. H.—See Randall's "Sheep Husbandry." Use a mixture of Red and White Clover and Blue Grass—equal parts—and sow about a bushel.

GRAFTING THE GRAPE.—B. S.—See our March number, page 80.

COTTON SEED.—W. M. B.—On page 226, of the "Cotton Planter's Manual," you will find a very excellent article on the properties and value of Cotton Seed, as a manure. It will "pay" for all planters to furnish themselves with the leading text-books of their profession.

HOG CHOLERA, &c.—C. T. B.—See volume for 1858, page 371.

WYNCOOP'S FORCE PUMPS.—L. P.—Address F. G. Wyncoop, Corning, N. Y.

BACK VOLUMES OF THE SOUTHERN CULTIVATOR.—W. H. H.—We supply these, bound, at \$1.80 each, post paid.

"HONEY BLADE" GRASS.—O. H. L.—This is the Hungarian, merely, with a fancy name. We have given a description of this grass heretofore.

"AGRICULTURAL STATESMANSHIP."—The suggestions of Dr. F. H. Gordon deserves the particular attention of our readers and contemporaries. We are strongly in favor of such a movement as he advocates, and hope the "ball" he has started will be "kept in motion."

SOUTHERN AGRICULTURAL PAPERS.—In response to the wishes of a subscriber, we will give a list of all Southern Agricultural journals, with terms, place of publication, &c., in our May number. This request was only received as we were going to press.

RAREY'S "HORSE TAMING" has been mailed to all who have applied for it, up to the 10th of March. If any have failed to reach their destination, we will cheerfully send them again.

Several interesting communications, received too late for present number, will appear in our next.

NEW ADVERTISEMENTS.

SPECIAL attention is called to the following advertisements:

Rhodes' Superphosphate Lime, J. A. Ansley.

Whale Oil Soap, D. B. Logan.

Flower Seeds by Mail, J. M. Thorburn & Co.

French Hybrid Gladiolus, J. M. Thorburn & Co.

Agricultural, Carmichael & Bean.

Important to Planters, A. Johnson.

Elliot's Western Fruit Book, A. O. Moore & Co.

American Weeds and Useful Plants, A. O. Moore & Co.

Landscape Gardening, A. O. Moore & Co.

Rural Manuals, Fowler and Wells.

Short Horn Herd at Auction, Samuel T. Tarber.

New Agricultural Warehouse, John Mayher & Co.

AGRICULTURAL COLLEGE OF MICHIGAN.—From a recent Report of the Board of education for the State of Michigan, we extract the following paragraph, from which it will appear that this experiment, so full of interest to every lover of industrial progress, is proving an eminent success:

"We have at present, accommodations for but sixty students; but these are made by the necessities of the case, to answer for one hundred. The number of applicants, judging from experience, will exceed any accommodations the Institution will be likely to possess, exclusive of the numerous applications from other States. In our opinion, provisions should be made as soon as practicable, for the accommodation of at least two hundred students; to do which some additional buildings will be required, and, also, an increased number of Professors."

CONDENSED CORRESPONDENCE.

THE VINE IN NORTH ALABAMA.—Mr. C. W. Strong, of Meridianville, Madison county, Ala., writes us that he has been engaged in Vine Culture for the last six years; that, in 1856, he made 325 gallons of wine; failed in 1857 on account of frost and a hail storm; in 1858, made 210 gallons of wine, all Catawba, Isabella and Herbeumont's Madeira, and will have in 1860 five acres in full bearing, &c.

HOW TO KILL SASSAFRAS.—We have published various methods of destroying the Sassafras, heretofore, but the following inquiry may elicit something new:

EDITORS SOUTHERN CULTIVATOR.—We are greatly troubled in this part of the country with Sassafras sprouts that spring up in multitudes in our fields a few years after they are cleared and brought into cultivation. These sprouts, owing to their incalculable number, give us great annoyance in our corn, wheat and oat crops. The object of this communication is to ask some of your numerous correspondents to inform us through the medium of the *Cultivator* how we are to prevent the growth of the Sassafras in our fields, or how to exterminate it when grown. An answer to this will much oblige,

Yours truly, JOSEPH MCKEE.
Juno, Dawson, Co., Ga., 1859.

HOG CHOLERA AND BLACK TONGUE.—Can you or your numerous correspondents give me a certain, safe cure for Hog Cholera; also, Murrain, Distemper or Black Tongue in cattle?

C. T. B.

CORNS ON THE FOOT OF A HORSE.—Will you, or some of your numerous readers, inform me how to cure corns on the fore-feet of a horse? I have one so afflicted with them as to be scarcely able to get out of a walk.

R. J. R.

AWFUL!—The terrible results of a failure of the *Cultivator* to reach its destination, are but faintly shadowed forth in the following "burst" from a Mississippi correspondent:

"Why, if the *Cultivator* were to stop coming here (where every number, I suppose, from the first of the first volume to the last of the last has come,) we would all get entirely out of gear. "Buck" would not *haw*, nor "Brandy" *gee*; the mules would cease to bray; the horses become sluggards; the colts would stop growing and the mares foaling, the sows to grunt and the pigs to squeak! The fences would fall down and the gates fly open; the hens would cease to cackle and the Shanghai 'roosters' to crow (so loud), the bees to buzz, the birds to sing, the corn to grow, the cotton to open, the fruit to bud, the flower to bloom; 'the nightingale would pine, the roses fade,' and everything else you can imagine would happen, in addition to my imaginings."

GEORGIA WINE, IN OHIO.

The interesting and suggestive letter of our friend, R. BUCHANAN, Esq., of Cincinnati, ought to remove any lingering doubts that may still be entertained by our people, respecting the capacity of the South for the easy and profitable production of Grapes and Wine; and will, we doubt not, give a new impetus to Vine Culture among us.

If we divide by 4 the one thousand (1000) gallon estimate of Mr. BUCHANAN's Georgia correspondent, we still have 250 gallons of wine per acre; which, at the low price of \$1 per gallon, gives us \$250—a return far better than

we can expect from cotton, corn, rice, wheat, tobacco, or any other staple crop. It may be urged that, with a large increase in produce, the price of Wine must, necessarily, fall, and that the present rates cannot long be sustained; but the history of the past proves that the *demand* for nearly all the necessities and luxuries of life more than keeps pace with the *supply*, and that most of our agricultural and horticultural productions command a higher price now than they did ten years ago. It will require a century, yet, to supply our vast and constantly increasing population with good and cheap wines in abundance, and to drive out of use the immense quantity of adulterated trash which we import from abroad, and the vile alcoholic mixtures that we make at home.

By reference to the article on Champagne Wine, in present number, it will be seen that America alone imports from France and consumes about *six and a half million bottles* (6,400,000) of *Champagne* per year! to say nothing of the hundreds of thousands of barrels and hogsheads of stuff called "Madeira," "Claret," "Sherry," "Port," &c., &c.; the importation of which from other foreign countries, costs us additional millions of dollars annually.

With our vast extent of country suitable to the Vine, and our abundance of cheap lands, we ought not only to supply our own wants, but those of the "rest of mankind," and we *can do it*, if we will try. Let us, then, push forward the production of *pure* and *cheap* native American Wines; drive all poisonous and unwholesome foreign mixtures from the market; suppress, in a great measure, the tippling of maddening alcoholic drinks, and keep our untold millions of money at home, for the benefit of our own people.

There is no work of patriotism or philanthropy in which a portion of our land owners can engage more commendably than this; and few enterprises that hold out as strong and sure pecuniary inducements.

OUR BOOK TABLE.

TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY, for 1857.

B. P. JOHNSON, Esq., the accomplished Secretary of the New York State Agricultural Society, has given us an opportunity to read the *seventeenth* volume of the Transactions of an institution which deserves something more than a passing notice. In the volume before us, of over 800 pages, there is one of the best addresses ever written or spoken by Mr. EDWARD EVERETT, whether viewed in reference to its classical purity of style and language, or the happy choice of themes adapted to the occasion of an anniversary festival of American farmers. Prof. WILSON of the Edinburgh University; Messrs. LAWES and GILBERT, of England, the largest experimenters in agriculture the world has ever produced; Prof. BREWER, of the Agricultural College of New York; Dr. FIRCH, Entomologist to the Society; PETER LOVE, of England, on the Mechanical mode of Deepening Soils; SANFORD HOWARD on Dairy Stock; not to name other able contributors, furnish instructive papers in the work under consideration. So much new matter, and much of it from practical farmers connected with the well organized county societies in

New York, as well as much from the pens of the most devoted cultivators of agricultural knowledge, will justify frequent reference and citation hereafter. The officers of this flourishing Society, and especially its indefatigable Secretary, have had large experience in commanding the best talent in this and other countries to aid them in promoting agriculture. They wisely use only the soundest materials in getting up their annual volume of Transactions: and in this way, make it an object of interest to nearly all the learned societies of Europe, and at the same time, a matter of just pride to the intelligent farmers of the State under whose fostering care and patronage it is issued. Cultivated and applied common sense always gives strength and stability to an institution. Men honor and elevate themselves so long as they honor and elevate the true interests of agriculture. It is only by forgetting all mere personal feelings, and laboring for the common good of all, that man rises to the dignity of a superior being. To combine the wisdom of many minds in a book that may be read and understood by all, is an art that very few possess. Mr. Johnson has shown in the seventeenth volume published by the N. Y. State Agricultural Society, that he has not long studied and practiced this profound art, without profit. It is a little more important to know what to keep out of such a work than to learn where to find suitable matter for insertion. Our rural literature is sadly damaged by the profuse publication of crude ideas, and false conclusions in reference to tillage and husbandry. Thousands undertake to teach principles in a profession, which they have never studied with due care and diligence in order to reach the truth. Indeed, we are all too apt to forget what Lord Bacon taught three centuries ago, to this effect: "That Science can only grow by the observation of individual facts." Nothing, therefore, can be gained by premature generalizations; and the volume before us is by no means free from the common error of ardent minds which sometimes jump far to reach a sought for conclusion.

L.

THE HOUSE: A Pocket Manual of Rural Architecture; or, How to Build Dwellings, Barns, Stables, and Out Buildings of all kinds. With a chapter on Churches and School Houses, &c. Price, post paid, paper cover, 30 cents; muslin, bound, 50 cents. FOWLER & WELLS, publishers, 303 Broadway, New York.

This little treatise contains a great deal of valuable information on all subjects connected with Rural Architecture, and may be very profitably consulted by all who intend to build. It furnishes designs and plans of every description, from a smoke house to a modern villa, and will be found very interesting even to the general reader. We give samples of the illustrations, in present number of the *Cultivator*, and can honestly recommend it as worth many times the price asked for it. Address FOWLER & WELLS, as above.

DOMESTIC ANIMALS: A new Pocket Manual of Cattle, Horse and Sheep Husbandry; or, How to Breed and Rear the various tenants of the Barn Yard, &c. Price, paper, 30 cents; cloth, 50 cents. FOWLER & WELLS, 303 Broadway, New York.

In the absence of a more elaborate and complete work

on Domestic Animals, the above will be found a useful compendium and *vade mecum*; and every person at all interested in domestic animals can well afford the very moderate price at which it is offered. Address FOWLER & WELLS, as above.

PROCEEDINGS OF THE SEVENTH SESSION OF THE AMERICAN POMOLOGICAL SOCIETY, held in the city of New York, September 14, 15 & 16, 1858. Published by the Society. 1858.

This volume contains 264 pages, comprising the Address of President WILDER; names of Delegates and Members; Officers, Committees, &c.; a General Report of the Discussions on the merits of different Fruits; Constitution and Bye-Laws of the Society; Reports from the different States, &c., &c. Also, the following papers, read before the Society: "Fruit Drawing, in a General Point of View," by L. E. BERCKMANS; "Adaptation of Varieties of Pears to Soils and Localities," by T. W. FIELD; "Fruit Culture," by J. J. THOMAS; "The Pomological Resources of the South," by D. REDMOND, &c. We are much obliged to our friend, FIELD, the able Secretary, for the copy before us, and will give our readers some extracts from it hereafter.

"**THE DEMOCRATIC AGE**," is the title of a monthly magazine, devoted to "Statesmanship, Science, Art, Literature and Progress." It is edited with much ability by C. EDWARDS LESTER, and published by R. EDWARDS & CO., No. 41 Park Row, New York, at \$2.50 per year, in advance. We give a specimen article from the *Age* in present number [Champagne Wine] and, throwing all political bearings out of the estimate, find not a little in the work that is genial and readable.

THE CINCINNATI is a capital journal of Scientific Agriculture, Horticulture, &c., &c., published at College Hill, W. H. ONGLEY, at \$2 per annum, in advance. We have before noticed this periodical with favor, and always find in it much to interest and please us.

TANBARK AS MANURE.

WEREVER tanbark has been partly rotted, and especially where it contains the trimmings of hides, shavings and schivings of leather, and refuse lime, it is often a valuable manure. Bark just from the tan vats is not fit to act at once as a fertilizer, or as food for agricultural plants. The tannic and other acids it is likely to contain is likely to injure growing crops. The best way to use it, as a general practice is to dry it at the tanyard, and put it in stables for horses, cows other stock to stand and lie upon, so as to have their liquid excretions absorbed by the dry bark. The chemical changes first commenced by the urine, will extend to the constituents of the bark, and both the latter and the former, as well as the solid excrements, if present, will form a rich compost applicable to any soil. Where one has no horses or other stock, then lime or ashes ought to be mixed with spent bark to correct acidity, and improve the quality of the vegetable mass. The soluble salts in leached bark are dissolved out in the tan vat. SACSSTER found 7 per cent of soluble mineral

salts in the ash of oak bark, 3 per cent. of phosphates of lime and magnesia; 66 per cent. of carbonate do; 1 1-2 per cent. of silica; and 2 per cent. oxide of iron. Mr. MILLS says that "one load of oak bark laid in a heap and rotted after tanners have used it, will do more service to stiff cold land, and its effects will last longer than two loads of the richest dung." This is probably an exaggeration. Every animal substance mixed with bark greatly increases its value. Dry bark, saturated with chamber slops, soap suds, or mixed with the materials that may be had at the garden house, becomes an excellent manure. Everything of the kind ought to be saved with the greatest care by all who have any land to cultivate, or fruit trees to look after. Lime in which there is more or less hair is better for agricultural purposes than a pure article. Dry hair, like that of hogs and cattle, is worth its weight in Peruvian guano; or \$3 per 100 lbs.

L.

POISONOUS FUNGI.

EXCESSIVE rains during the spring and summer, and humidity of soil and atmosphere resulting therefrom, often produce an unusual amount of poisonous fungi to be eaten by cattle, hogs, deer and other animals. That cattle are very fond of the esculent and healthy species of this numerous tribe of plants is a fact very generally known; and that they should mistake poisonous varieties where they abound, for such as are not poisonous, is as natural as it is common. Most readers know how fond the Romans were of mushrooms; and botanists inform us that no fewer than thirty species of *agaricus* are eaten in Russia at this time. Some of these are not free from poison; for tobacco is not the only poisonous plant that man knowingly and habitually puts into his mouth. Like ourselves, our live stock are able to consume a little poison with their daily food with no perceptible inconvenience; but when they indulge their appetites to excess, disease and death follow as the natural results. They find poisonous mushrooms mostly in woods and swamps, and should be kept out of such infected ranges during the prevalence of hot weather when fungals grow with the greatest luxuriance.

DR. CHRITISON gives the following general directions for distinguishing the esculent from the poisonous varieties. "It appears that most fungi which have a warty cap, more especially fragments of a membrane adhering to their upper surface, are poisonous. Heavy fungi which have an unpleasant odor, especially if they emerge from a vulva or bag, are also generally hurtful. Those which grow in woods and shady places are rarely esculent, but most are unwholesome; and if they are moist on the surface they should be avoided. All those which grow in tufts or clusters from the trunks or stumps of trees ought likewise be shunned. A sure test of a poisonous fungus is astringent or styptic taste, and perhaps also a disagreeable, but certainly a pungent odor. Those, the substance of which becomes blue soon after being cut, are invariably poisonous. Agarics of an orange or rose red color and boleti, which are coriaceous or corky in texture, or which

have a membranous collar round the stem are also unsafe. These rules for knowing deleterious fungi seem to rest on fact and experience; but they will not enable the collector to recognize every poisonous species."

Poisonous mushrooms, in cooking, disengage so much sulphuretted hydrogen gas that it will tarnish a silver spoon or silver coin brought in contact with the seething vegetable; and persons having little knowledge of edible fungi cannot be too careful to avoid mistakes in a matter of so much importance. In cases of doubt, it is safe to abstain from eating any fungals whatever.

The parasitic fungi that grow on corn, wheat, oats, rye and barley are even more injurious to man and beast than any of the agaric genus. The writer has noticed that corn is often affected to an unusual degree with the large black fungus nearly allied to smut in wheat and oats. All these microscopic fungi that prey on cereals are poisonous; as is also ergot or "horned rye." In securing a corn crop, whether fodder, stalks or ears, care should be taken not to contaminate either with the black dust of the fungus alluded to. The diseased part is too prominent not to be noticed, and it should be cut or broken off and thrown away. Hundreds of experiments have established the fact that the seeds of the *uredo segetum* adhere to the seeds of grain, such as corn, wheat, oats and barley, and are planted and propagated with them. Hence the value of washing all seeds of the cereal grasses in a strong solution of bluestone (sulphate of copper) or of common salt before planting. Recently slaked lime, or water saturated with caustic lime is fatal to the vitality of all sporules of this character. Care should be had not to allow seed grain to remain too long in any steep to kill smut, as the brine may penetrate the oily covering of the seed and destroy its germ. We have often seen seed wheat injured, and sometimes wholly ruined by being too long in some mineral steep. Three or four hours are long enough, with good washing.

It is not known how long the seeds of these parasitic seed will live in or on the ground; but they have been planted in burnt soil under circumstances that leave no doubt of their being taken up by the roots of wheat and maize, and conveyed to the points where the fungus multiplies its species. Its fecundity is amazing, but, fortunately, it does not thrive except in peculiar circumstances and conditions. Clean culture, and the free circulation of dry air operate against every species of blight. Humidity and heat favor the increase of these vegetable pests. Mildew, mould in bread, and dry rot in timber are parasitic plants closely allied to smut and rust on wheat and oats. Even animals nourish parasitic plants as well as parasitic animals, like lice and ticks. It would almost appear to be a law of nature that the smaller the individual animal or plant the greater its power of reproduction to compensate for its feebleness. Where a slight change of temperature, or of moisture destroys millions of living germs, millions are shortly produced by a single germ, where the conditions favor such a result. All the conditions favorable and adverse to vitality, whether in the plants we cultivate, or in their enemies, are subjects worthy of our best consideration.

L.

CHINESE SUGAR CANE SYRUP.

In reply to "L W. P," we would state that, at one of the meetings of the United States Agricultural Society, Dr. Charles T. Jackson, of Massachusetts, is reported to have made some very interesting remarks, based on recent investigations which he had made by order of the Patent Office to investigate the amounts of saccharine matter in different varieties of Sorgho and of Imphee, both of which he had found would produce crystalized and crystalizable sugar. Seed and sugar cannot both be raised in great amounts in the same plant. If one be great the other must be small; one will preponderate at the expense of the other. We cannot have a great crop of seed and of sugar at the same time. The unripe cane yields grape sugar or glucose, whilst the ripe cane gives crystalizable or cane sugar. It is always possible in Massachusetts to make syrup, but not cane sugar. But this syrup or glucose is better than cane sugar for alcohol, (in now so greatly increased request for manufacturing, chemical and medicinal purpose,) because cane sugar has to be restored to grape sugar syrup before it can yield alcohol. The average crop of syrup from the Sorgho in Massachusetts is 300 gallons to the acre. Mr. Hyde, of Newton Centre, had so produced it, and sold it at a dollar a gallon, whilst ordinary molasses only brought fifty cents. This is a fair test of its value in the market. Its value to the rich is great, but to the poor still greater. From it can be made their burning fluids. In reply to a question from a member, Dr. Jackson said that on average good soils he considered three hogsheads of syrup per acre could be safely reckoned on. These plants would certainly hybridize, as they all belong to the genus *Andropogon*.

Dr. Jackson next mentioned some minute results of his investigation as to the best method of forming crystalized sugar from the syrup of the Sorgho. It is better, he said, to have an excess of lime. He also insisted on the necessity of a cold filtration before boiling, to rid the syrup of all impurities. After a first boiling, he advised a second boiling to be followed by a second skimming, and filtration. The boiling must be done slowly, and care taken not to burn the syrup, or it will not crystalize into sugar. He also enlarged on the advantages of making sugar *in vacuo*, which enables the whole mass of syrup to crystallize.

 Hon. A. H. STEVENS, of Georgia; Hon. J. H. HAMMOND, of South Carolina; Commissioner Holt and D. J. BROWNE, E. q., of the Patent Office, will accept our thanks for valuable public documents, seeds, grape cuttings, &c.

 All subscriptions to the *Southern Cultivator* commences with the January number.

CAUTION!—The fine stallion, Black Morgan, owned by Mr. A. C. Stowell, of Petersham, Mass., died on the 2nd ult. The horse was unwell and his owner intended to dose him with linseed oil, but through some mistake of the clerk in the store where the purchase was made, the horse got a bottle full of either resin oil or spirits of turpentine. The animal died in great agony in about seven

Agricultural Department.

GEORGIA WINES IN CINCINNATI.

EDITORS SOUTHERN CULTIVATOR—I have just sold the first *Georgia Wine* sent to Cincinnati. It was of the vintage of 1857—seven hundred gallons. The price obtained (\$1.15) will net the owner about \$1 05 at his vineyard; a price with which our wine growers here are generally satisfied. Sometimes a very fine wine is sold at \$1.50, but the average price is \$1.

I had some of our best judges to examine it, and they pronounced the quality excellent—"more body and less acidity than our Ohio wines."

One of our most extensive wine planters observed, "those gentlemen can scarcely be aware of their advantages in soil and climate, but, sooner or later, they will find it out."

It is pleasant to observe the cultivation of the vine extending all over the country, wherever the climate is favorable to its growth. It adds another branch to our agricultural resources, and will, in the end, make us a more temperate people. It is, also, highly gratifying to notice the public spirit and liberality with which some of your citizens of Georgia enter into this cultivation. As an example, I give the following extract of a letter, recently received from a gentleman of wealth and judicial eminence in your State. I am not at liberty to use his name, but his motives are alike honorable to his head and his heart:

"Our wine made in Georgia is better than some made in Ohio. It is all of 5 per cent. stronger, and will yield as I doubt not, an average of 1,000 gallons to the acre, and often over 2,000 gallons. This I scarcely expect you to believe.

"And yet I do not go into it for money. I have, I believe, a higher motive: first, sobriety, but mainly to show poor families how to support themselves comfortably off a small piece of land; and to do this, I *must* make money, for if I fail to do so, I shall then fail of my true object. If I succeed, I have not the time left me to profit much for myself; but can, I hope, leave a benefit to others."

The sale of Grape Roots and Cuttings to the Southwest has, this season, been very large, and is the best evidence of the increase of wine planting.

R. BUCHANAN.

Cincinnati, Ohio, Feb. 24, 1859.

GRAPE---PEACHES---HYBRIDIZING, &c.

A medical friend, of South Carolina, writes us on this subject:

"Could you not impregnate some of the thin skinned foreign Grapes, such as Black Hamburg or Golden Chasselas, with the Warren, or *vice versa*? From pretty extensive experiments in hybridizing Sea Island Cotton, Corn, Peaches and Nectarines, I think the foregoing about equally as liable to follow or partake of the qualities of one parent as the other; with this exception: that a permanent or pure variety rules. In crossing the Peach and Nectarine, I have always produced a peach, with one exception, and in this case I produced a nectarine by impregnating the Hardwick Seedling Nectarine with a cross breed, produced by impregnating the Elrige Nectarine with the Heath Cling. This only had a few specimens last season, which were destroyed by the curculio. I expect sometime this spring or summer to give a full account of my experiments.

"I have experimented a little with hybridizing the Grape, and know, from the flower being so very minute, it is difficult. A few years since, I prepared some blooms

of the Catawba on a vine of one of my neighbors and impregnated them with Golden Chasselas; also, one Summer Black with Palestine; but unfortunately they were lost, some of them even after they had sprouted in the ground. Heretofore I have not cultivated Grapes from the fact of living on a pipe clay soil—the most unfavorable for Grapes—but, having much rock on my premises, I have concluded to underdrain deeply, and plant a specimen or two of all-promising kinds I can procure, chiefly for the purpose of experiment."

"UNION VILLAGE" GRAPE.

THIS is a superb native Grape, almost equal to the "Black Hamburg" in size and quality. A pomological friend, at the North, who is fully qualified to judge of its merits, says:

"You will get of Mr. Brackett the "Union Village" Grape true, and I do not know that it can be obtained elsewhere, unless from Dr. Grant, who has the variety. It is very singular that the history of this fine Grape cannot, with any certainty, be traced. It came from Mr. Longworth, but I doubt now whether it can be found in Ohio. It is said to have originated with the Shakers at 'Union Village'; but the original vine cannot be found or traced. I should think that, in Georgia, it will be found a very valuable sort. I am fearful that it is hardly early enough for the North."

C.

Massachusetts, Feb., 1859.

TREE PLANTING AS IT SHOULD BE.

EDITORS SOUTHERN CULTIVATOR—There are certain niceties in the practice of tree planting, which I have not seen noticed in any publication, and which I think are very valuable to be known. I allude particularly to Dwarf Pears and other plants having their roots in whorls, or one tier above another.

The old original way of disposing of such specimens, was, after placing them in a hole to crush the soil, fibres, little sticks and gravel, into a promiscuous ollodop with the heel of an Irishman, or in a refractory case, of a Dutchman!

The hydropathic plan was a step in advance, for, instead of a dry "mash" you had a wet one!

Next we were made acquainted with the finger packing business, which tickled young horticulture into the conviction that he was doing a cash business, because he was a long time about it, and got himself very dirty in the process.

Suppose, now, we try the Dr.'s plan of planting "by sections."

Thus. He has a big hogshead of soap-suds and other savory ingredients.

He begins by dipping the little "bon chretien" (say) into this, and gently shaking him up and down. This combs out his tresses beautifully. He is then laid in a wheelbarrow with his confere upon wet moss, and is also covered with the same, or receives a sprinkling of sand.

These are only preparatory steps to the application of our new manipulation, which is as follows:

Arrived at the place of planting, our little Neophyte is taken by his top and turned heels upwards.

His long locks fall about his stem and are carefully gathered together and held there, all but the bottom tier. He is now introduced to his new quarters with his hair behind his ears, like a pyratical "Chadband." Having touched bottom, at the preconcerted depth, this tier of roots is planted exactly as though it was all the roots the poor thing had. That is to say, the fibres are nicely spread out, nicely covered with fine soil and gently patted by way of farewell. By this time the soil will have

reached the base of the second tier. The hand releases the fibres in this, and they are treated in the same way. So on up, till your pear bud is fairly concealed, when the performance concludes with a pat of the shovel, or, preferably, a raking, smoothing, compressing flourish with the fork.

Much talk for small cider; but I on'y wish I had known as much when I was younger, and could look innocent when anybody propounded that epidemic puzzle—What is the matter with my *pear trees*?

Yours, &c., T.

Torch Hill, Ga., 1859.

HAW STOCKS FOR THE PEAR.

EDITORS SOUTHERN CULTIVATOR—I am a sort of a Horticultural amateur, and have of late been reading your journal, and taking an especial interest in subjects relating to the management of fruit trees

I observe in your last January number that, in "Answers to Correspondents," you state that "the Pear, we believe, succeeds very well when grafted on the common Red Haw." This is somewhat different from my little experience in the same matter, and I am anxious to learn from you on what data you now rest this conviction or belief.

In the volume for 1858, at page 285, you remark, in answer to some inquiry made by a Texas correspondent, regarding this same subject, that you had "no experience with that stock," and refer the writer, for further information, to the author of a communication in a preceding page of the *Cultivator* (220), who gave a very favorable account of his experience with "the common red fruited Haw, so abundant in our woods and old fields," as stock on which to graft the Pear, and stated that, in several respects, he gave a preference to it over the Pear or Quince for the same purpose, and that he had several years experience with all of these

A similar satisfactory statement is given at a subsequent period (page 342) by D. Ponce, of Mount Zion, Ga., who also mentions his having "dwarf bearing Pear trees on Hawthorn," and with which he seemed to be much satisfied.

I have seen nothing since this last communication on the same subject in your journal up till the appearance of your January number where, as already referred to, you express a very favorable opinion on the use of the "Haw" as a stock on which to graft the Pear.

In the fall of 1857, however, influenced by the information given in the *Cultivator* by the correspondents above alluded to, I tried my hand at grafting the Pear on a few of the common Red Hawthorn stocks, obtained from an old neighboring field, and have now only to say that, though the greater number of them lived, showing that the Pear may "take" on this particular stock, yet, at the end of a year, they are so exceedingly dwarfish as scarcely to be visible, having, in that time, made about as many inches of growth as Pear grafts on the Apple, set out at the same period in rows adjoining, have made of feet.

Since this may arise from the difference in the habits of the several stocks here employed, and time may develop latent virtues in those grafted on the Haw which I cannot now appreciate, yet I cannot but fear that there is too good reason for my expressing a doubt of their ever making for me good fruit bearing trees. Others may have met with a different result; but I think it best to report what is true, whether flattering to my feelings or not, that thus far they have not succeeded "very well" with me; the fault, however, may be mine, though I think that there are physiological differences in the caliber of the sap vessels of these trees which will make mine the more general result where these Haw stocks are employed.

I may, also, mention that I used, at the same period, a

variety of black fruited Haw, the leaves of which more closely resemble those of the Pear than the indented kind possessed by the Red Haw do, and with results similar to the above.

Yours, &c., D. M.

Osyka, Miss., Feb., 1859.

[The opinions we expressed on this subject were mainly based upon the experiments of the two very careful and practical gentlemen before alluded to, ("A. C." and D. PONCE) and not upon any special results of our own. We saw very thrifty and productive Pear trees on Haw stocks, in the orchard of one of these gentlemen ("A. C.") and we know that the Pear has been *occasionally* worked upon this stock from the earliest infancy of Pomology. We did not mean to *recommend* the Haw as the *best* stock for the Pear, by any means; but we thought it deserved farther trial, in view of the success that had attended the experiments of our friends. We join our correspondent, "D. M.", in asking further information from such of our readers as have well and fully tested the matter.—EDS.]

TRANSPLANTING FOREST EVERGREENS.

FRIEND HARRIS:—The taste and character of a people is manifest in the appearance of their home. And in turn, the character of the homes of a country have a powerful influence on the character and taste of the inhabitants. Who ever knew a well appointed home, beautified with the rich adornments which nature so bountifully affords, to turn out an awkward, uncouth youth?

The great difficulty in successfully transplanting Evergreens, is the extreme tenderness of the wood. If the earth is removed from the roots, it is almost sure to break off with it the small fibres or sponges through which the tree receives its nutriment. The great desideratum, then, is to keep the earth about the roots as near in place as possible. Dig the holes to receive the trees, say four to six feet in diameter, and two to three feet deep. Fill them up within eighteen inches of the top, mingling with the earth a considerable portion of gravel or stones, twigs, leaves, etc. Then take the wagon and one or two good hands, and if you have to go five or ten miles for the trees, start early, so that you need not be hurried. When you get to the woods, remember that if you carelessly take up a dozen trees and they die, you not only lose your time and labor, but are responsible for discouraging yourselves and neighbors; while, if you transplant half the number with care and skill, and they live, your labor could scarce be expended more profitably, as you not only increase the enjoyment of your own families, and every one who visits you, but adds hundreds of dollars to the price of your property, in case of its sale.

Dig a trench around the tree far enough from it to not mangle the roots, and when satisfied you are below the level of the roots, undermine it till it is loose. Then slip a board under and work the tree gradually on to it, till one can get hold of each end, and so carry it and place it nicely in the wagon. After arranging the trees all in the wagon, throw in a considerable amount of dirt taken from where the trees grew; this will help to keep the earth attached to the roots in place, and be excellent to put about the trees in setting them out. As you put the dirt about the roots, keep throwing in water to settle it closely around them. Plant the tree about the same depth it grew in the woods, but leave the hole in which it is set, unfilled, say four to six inches below the surface of the ground, in order that it may collect moisture and hold the mulching. Mulch it with pine twigs and leaves brought from the woods.

In this way I transplant Evergreens from the forest,

from one to four inches in diameter, and, though some die, enough live to compensate, ten-fold, for the trouble.

WM. H. LADD,
[in Ohio Cultivator.]

For the Southern Cultivator.

THE OLD PEACH TREE---WITH A MORAL.

That old unsightly Tree!

What moral might it teach,

When it lately tendered me

A melancholy Peach?

Its roots in rifted clay!

Its trunk to worm and sun!

Blown down and washed away!

Yet strangely living on!

The very utmost crest

Of that unshadowed hill,

And not, from east to west,

A rival pinnacle!

Beside a cabin, all

As mouldered as itself,

With weeds upon the wall

And a "May-Pop" on the shelf.

Of man, or beast, the sole

Successful speculation!

The harvest of a whole

Plantation's desolation!

What moral might it teach,

That old unsightly Tree,

As it tendered me a peach,

Acidulous, tho' free.

'Twas thus the Peach-Tree said—

"Oh! stranger! tell me why,

If this old Peach ain't dead,

A Peach should *ever* die!"

But I only shook my head,

And only answered—"Why!"

T.

Torch Hill, Ga., Sept. 3, 1858.

COL. L. D. BUCKNER'S ORCHARD.

WHILE on a recent visit to Milledgeville, we much desired to visit this orchard, but were prevented from doing so. An account of it was given us by a friend, the substance of which we place before our readers. We hope Col. Buckner will forgive the liberty we have taken with his name, as his success establishes several important points in Pomology at the South. Col. Buckner's orchard is situated near Scottsboro, a few miles from Milledgeville. It consists of 7,000 apple trees, 6,500 of which are the Shockley or Romanite apple. Col. B. regrets that his whole orchard is not composed of this variety. This apple came originally from Jackson county in this State. Its fruit keeps until June, and, being an upright grower, Col. Buckner places his trees only 17 feet apart.

Col. Buckner's orchard covers fifty acres of ground. The soil is exceedingly poor pine land. Yet it is found that the Shockley apple grows to a larger size and is more finely flavored than in the up country. A crop of peas is annually grown in this orchard. Some of the trees have produced as much as eight bushels. The fruit is put up

in barrels and sold at high prices, chiefly in Montgomery and Savannah. The investment is found to be extremely lucrative, as the sales vary from five to seven dollars per barrel. From the data given in this brief notice, our friends in Middle Georgia can "figure out" the result and determine whether it will be to their interest to establish apple orchards on some of their poor pine lands.—*South Countryman.*

CHARCOAL FOR STOCK.—All kinds of stock will freely eat charcoal and salt mixed with their food, and they will greatly increase in weight by the use of charcoal. To prove this, use charcoal, mixed with their food, to a dozen cows or sheep, and feed another dozen without charcoal, and you find a large relative increase of weight in those you have fed on charcoal, and their flesh will be more delicate, pure and white.—*Boston Cultivator.*

CONSTITUTION OF THE AIKEN VINE GROWING and HORTICULTURAL ASSOCIATION.

ARTICLE 1st.—This Society shall be known and designated as the Aiken Vine Growing and Horticultural Association.

ART. 2d.—The officers of the Society shall consist of a President, a Vice-President, a Secretary, a Treasurer and seven Directors, who shall be elected, by ballot, at the Annual Meeting of the Society by the Members thereof—a plurality of votes cast to constitute a choice—and who shall hold their office one year, or until others are chosen.

ART. 3d.—It shall be the duty of the President to preside at all meetings of the Society. The Vice-President shall perform the duties of the President in his absence.

ART. 4th.—It shall be the duty of the Secretary to make and keep a Record of the Proceedings of the Society, and to perform such other appropriate duties as may be assigned him.

ART. 5th.—It shall be the duty of Treasurer to receive all monies and property due the Society or donated for its benefit, and to dispose of the same only by a resolution of the Directors, certified by the President and countersigned by the Secretary. He shall keep an account of his receipts and disbursements, and report the same with proper vouchers, to the Society at its Annual Meeting.

ART. 6th.—It shall be the duty of the Directors to manage the property and business of the Society, so as best to promote the interests of Horticulture in all its branches; but more particularly in those having for their object the raising of fruit for market, and the culture of the Vine for the purpose of making Wine; and, also, to encourage, promote and improve the manufacture of pure wine.

ART. 7th.—The Annual Meeting of the Society shall be held on the third Thursday of July, at Aiken, South Carolina.

ART. 8th.—The Directors may make such Rules, Regulations and Bye-Laws as they may deem proper; and which are in consonance with this Constitution, to be approved or rejected by the Society at its next Regular Meeting.

ART. 9th.—Any person may become a member of this Society for the year by subscribing his name and paying into the treasury the sum of \$2, or may become a life member by paying the sum of \$10 at one time.

ART. 10th.—Any number of members exceeding ten, who shall meet on a day regularly appointed, shall have power to transact the ordinary business of the Society. But for alterations of the Constitution, or new appropriations of the funds, it shall require a majority of members to form a quorum, of which two-thirds will be necessary.

ART. 11.—The President shall have power to call extra meetings of the Society, by giving two weeks public notice.

ART. 12th.—The President, Secretary and Treasurer shall be "ex-officio" members of the Board of Directors; and, in addition to his other duties, the Secretary shall keep a record of the proceedings of the Directors, and act as Clerk of the Board.

BYE-LAWS

ARTICLE 1st.—The Directors shall meet in Aiken on the 1st Wednesday of January, March, May, July, September and November of each year, to transact the business of the Society. It shall be optional with them to meet oftener, if necessary. For ordinary business, three Directors shall constitute a quorum; but in no case where a difference of opinion exists will a majority numbering less than three, decide the case or question.

ART. 2d.—It shall be the duty of the Directors to receive and manage, to the best advantage, articles offered for exhibition; or to appoint a Committee either fifteen or twenty-five of the members to do the same.

ART. 3d.—It shall be the duty of the Directors to offer Prizes for the best articles, or similar rewards, within the scope of the objects of the Society, for competition.

ART. 4th.—Fruits, and other perishable produce, may be exhibited at any of the meetings of the Society, or of the Directors; and a Committee shall be appointed to examine the same, and report on that which may be worthy of notice.

ART. 5th.—Premiums shall be awarded at or only immediately after the Regular Annual Meeting of the Society; but perishable articles exhibited as above, and favorably reported on by the Directors or Committee, shall be entitled to premiums.

ART. 6th.—In offering premiums for articles exhibited it shall be the duty of the Directors to offer such as shall conduce to the advantage and advancement of Agriculture Horticulture and Vine-culture, such as improved implements of husbandry, subscription to an agricultural paper, a certain number of fruit trees or grape vines, &c., or some approved work on any of the above cultures. Provided, that if the successful competitor should prefer an equivalent in plate for his premium, he shall be entitled to receive it in such form.

ART. 7th.—Premiums awarded and not called for at or before the next Annual Meeting, will be considered as donations to the Society.

ART. 8th.—Competition on all articles within the scope of the Society is open to all, whether from this or any other State, as it is important to the members of this Society that they should become acquainted with all articles of superior merit wherever produced.

ART. 9th.—Premiums shall not be awarded on articles of inferior merit, although there may be no competition.

ART. 10th.—New Seedling Grape Vines, Apples, Pears, Plums, Peaches, or other fruits raised at, or adapted to the South, are to be particularly encouraged, and those deemed valuable shall be entitled to the highest premiums.

ART. 11th.—The President, or, in his absence, the Vice-President, or Chairman, *pro. tem.*, shall be required to offer a subject on Agriculture, Horticulture or Vine-Culture for discussion at the ensuing meeting, and appoint a member to prepare an essay on the subject. Members are also requested to try experiments in any of the above branches and to give in a minute and correct report of the results—in writing or otherwise.

ART. 12th.—Honorary Members shall be elected by the unanimous consent of the Directors, subject to the approval or rejection of the Society at its next regular meeting. They shall be entitled to all the privileges of regular members, except that of being elected officers of the Society.

OFFICERS OF THE SOCIETY FOR 1858-59.

President—Dr. J. C. W. McDONNALD.*Vice President*—Col. WM. GREGG.*Treasurer*—H. W. RAVENEL, Esq.*Secretary*—E. J. C. WOOD.*Directors*—Messrs. J. G. STEEDMAN, JAS. PURVIS, W. G. MOOD, A. DE CARADEUC, J. D. LEGARE, Judge A. M. D. ROBERTSON, and Col. W. P. FINLEY.

Anniversary, Third Thursday in July.

Quarterly Meeting, Third Thursday in July, October, January and April.

Regular Monthly Meetings in May, June, July, August, and September, 3rd Wednesday.

ON MULCHING.

BY WILLIAM SAUNDERS, GERMANTOWN, PA..

"If we were asked to say what practice, founded on principle, had been most beneficially introduced into our horticulture—we should answer *mulching*—mulching suggested by the need of moisture in our dry climates, and the difficulty of preserving it about the roots of plants."—*A. J. Downing*.

At the late meeting of the Am. Pomological Convention the subject of mulching was brought up and an opinion unfavorable to the practice prevailed among those who participated in the discussion. As there was no vote taken on the question, it would be unfair to conclude that the sense of the meeting was opposed to the practice, as might be inferred from the published reports of their proceedings.

It is, perhaps, to be regretted that the Convention should undertake the discussion of such subjects, its time being too limited to do them justice; otherwise we can hardly conceive it possible that a practice so generally conceded as being in the highest degree beneficial, should be branded as injurious, at least without some explanatory qualifications.

The object of mulching is to maintain a uniform degree of moisture in the soil by arresting surface evaporation. This is most effectually secured by the interposition of a statum of *air in repose*. Bodies are said to be good or bad conductors just as they are solid or porous.

Iron is a better conductor than wood; granite stone a better conductor than brick. Hard pressed soil is a better conductor than soil that is loose and porous. A beaten path is warmer in summer and colder in winter than the cultivated ground alongside of it; its particles being in close contact, its conducting powers are increased; the arid winds of summer passing over its surface carries off the moisture which the heat evaporates, and renders it unable to support healthy and vigorous vegetation; therefore, in covering with manure, tan, or charcoal dust we apply a material that contains more air than the soil, and in a position not easily disturbed.

As to the value of mulching as an auxiliary to successful culture, the result of practical experiments fully confirms all that theory proounds; and in the case of newly planted trees the preservation of a uniform degree of moisture in the soil surrounding their roots is the most important point of management, and, other things being equal trees will languish or grow just in proportion as this condition is secured.

One of the speakers at the Convention alluded to, observed that, "mulching had always proved of no value, but rather injurious. I have found that the mulch dries out in summer when most needed, so as to be of little value, and the trees cast their leaves." This might well be taken as an argument in favor of mulching, as the trees lose their leaves when the mulching fails. The evident course to pursue in such cases, would be to renew the mulch and so maintain vigor and preserve the foliage.

The drying out of the mulch is no argument against its value. Such materials as tan bark, wood chips, charcoal dust, or even barn yard manure does not readily dry out or decay. It cannot be considered a fair test to allow the mulch to dry out "when most needed."

Another objection to mulching is the harbor it provides for mice and insects. When mulching has been left on during winter I have seen much destruction from mice eating the bark and roots, but I have never seen mice do injury to trees in clean, cultivated ground, whether mulched or not; and in regard to insects I would express a contrary opinion, and assert that were it convenient to keep the soil constantly covered with a suitable mulch, we would abridge, to a considerable extent, the increase of insects; the shade and moisture of the mulching being inimical to their habits.

A further objection was brought forward, "that a heavy mulch absorbs all the water from a light shower, and the soil below is dry." This, as an objection, is practically unimportant.

Although mulching is apparently a simple operation, yet care is required in its application. Before mulching a newly planted tree, if in the spring, shape the soil in the form of a basin, extending the rim beyond the extremities of the roots, thus rains will be retained and artificial waterings effectually applied, if found necessary. If planted in the fall, the soil should be mounded slightly to the stem and well firmed round the roots; in either case be careful that the mulch does not approach nearer than within 10 or 12 inches of the stem of the tree. Winter mulching should be heavy to prevent frosts from reaching the roots, and will be found of great benefit in clean ground, but if rough and weedy so as to encourage mice, no mulching should be applied during winter, and every precaution taken to prevent them from eating the bark, such as tramping around the roots after heavy snows, and keeping the soil well pulverized, clean and compressed.

To be effectual it is not necessary that the mulching in summer be heavy, three or four inches in thickness of well rotted manure I consider the best that can be applied; if tan or charcoal dust, a thickness of two inches is sufficient; the short grass cuttings of the lawn forms a very suitable material, but it must be spread thinly so as not to ferment, which it is very sure to do if applied wet in quantities; a mouldiness frequently originates after fermentation ceases which is very injurious. Some years ago my attention was directed to a plantation of young trees that had suddenly and prematurely lost their foliage. They had been carelessly mulched with rough hay, and it was discovered that a peculiar fungus had originated in it and spread over the roots, and in some cases enveloped the stem of the tree. The mulching was immediately removed and the soil forked over; the growth of the fungus was arrested, but several of the trees died. I mention this as a warning to inexperienced mulchers.

The benefits of mulching may be carried into the vegetable as well as the fruit garden. Mulching between the rows of growing crops I have found to be of great value. The soil is not compressed by rains nor baked into a crust by sun, weeds are kept down, evaporation arrested and the crops materially increased.—*Horticultrist.*

TRAVEL.—Traveling is good to take conceit out of man, to shake out his ideas, and enlarge the bounds of his mental vision. It makes men wiser, but seldom happier. After all, home is the place for comfort; we are always happiest where the heart is. As Holmes says: "The world has a million roost for a man, but only one nest. Others may roost where they please; give us the nest."

He that would have his business well done, must either do it himself, or see to the doing of it.

LAND AND LABOR.

BY T—.

Cheap Labor! dear Land! let the Dial go back
 Some cycle or so, for the blessing we lack!
 Let the darkest of ages their annals expand
 With the cheapest of toil, and the dearest of land!

Two Serfs for a Seignior! weary and froze!
 Hot blood for his foot-bath! bless his old toes!
 There's a "rise" in mankind since the Seigniors are gone!
 And a "farther decline"! be it upward and on!

But a dollar a "muscle!" ten for a 'bone!'
 To high? my dear sir! then rattle your own!
 Too much for a darkey? the deuce must be in't
 If he is a gold-mine, and thou not a mint!

There's a law on the subject that holds like a vice—
 Of all a man hath, his toil is the price,
 And his are good wages, whoever the man,
 Who has what he makes, let him make what he can.

To starve with old Erin! to sin with New York!
 Let them fix the price of your land and your work!
 But for bread while you live, for a hope when you die,
 Give us land "cheap as dirt," and a labor "sky-high."

February, 1859.

• • •
"AGRICULTURAL STATESMANSHIP."

EDITORS SOUTHERN CULTIVATOR—In the January number of the *Cultivator*, Dr. Lee has published an article under the above head, which is an able, patriotic, and independent editorial. The good of the Union, and especially the agricultural interest demands that all our agricultural periodicals shall abound in such editorials. The article in question begins thus: "The time is not remote when the study of agricultural statesmanship will form a prominent feature in the education of young men, who shall aspire to the honor of representing, at all times and in all places, the great farming interests of the country, in a way that shall be creditable to themselves and beneficial to the public." And with candor and force the editor urges the necessity of such an education.

Some three years ago, the writer of the present comment, wrote an article addressed to Dr. Lee, (which was published in the *Cultivator*) under the head of "Agricultural Politics." In that essay I set forth a platform which I thought embodied the necessary fundamental principles of an Agricultural Party. In Dr. Lee's editorial comment, he urged against my position that agriculture is too pure to be mixed up with the corruptions of political parties, but still, substantially admitted the necessity and justness of carrying into effect, in some way, the principles I there set forth. (I talk from memory, his comment not being before me.) Dr. Lee's article, as I have now quoted from the number of last January, admits and urges the necessity of agricultural statesmanship. In substance we agree, but differ as to the means of accomplishing the same objects; and the difference is but apparent, not real. Agricultural statesmen (when we shall have them) will freely utter their sentiment and urge their policy, and this will soon form an agricultural party. To this end all things are now rapidly tending; and to this end we must come before our State and National Legislatures will do justice to our great agricultural interest. Till then farmers and common mechanics will, virtually, have no part or lot in ruling public affairs, and their great interests will

receive no consideration or aid from our statesmen. Commerce will still receive its millions of dollars from the National Treasury, and millions of acres of choice lands from the public domain, while statesmen will console themselves for their patriotism and liberality in appropriating a few pitiful thousands to buy seeds for the benefit of agriculture. Colleges and Universities will still be built by National and State appropriations, adapted to the education of merchants, divines, doctors and Lawyers, while there will be no schools suitably organized and endowed to educate farmers and mechanics. Their only dependence upon public aid will still be the miserable common schools, where teaching is let out to the lowest bidder, who may be willing to do a sorry sort of teaching for his sorry wages.

Farmers will still constitute three-fourths of our population, and form our strongest national defence in time of war; they will still own eleven-fourteenths of the national wealth, and support the public treasury about in that proportion; but, notwithstanding all this, they will have no influence upon national policy.

They will continue to vote for this or that aspirant to office, as their party leaders may influence them, and never ask what their candidates will do for their peculiar interest.

This is what has been done, and what will ever be done, till farmers shall assert their rights at the ballot box, and claim that they are citizens—that they constitute a portion of the body politic—that they have equal rights to distribution benefits from the government. By this course our statesmen have to be taught that our agriculture is a great interest—that it is greater than any other on the face of the earth—that to foster and develop this interest by all prudent means is the greatest business of great statesmen—that, by a judicious fostering care of our agriculture, this Union will soon grow to be the greatest nation upon the globe, and produce enough to feed and clothe the whole world. We have the extent of territory, the diversified climates and soils, and the energetic population capable of all this; and we only need comprehensive statesmen, who can and will appreciate all our great interests, and devise the best means for promoting them. We want statesmen who consult not the interests of commerce alone, but whose ambition is to make our nation great in Commerce, great in Manufactures and great in Agriculture, and, as necessary to all, great in the intelligence of the people.

When we shall have such statesmen, farmers will soon become as intelligent as they should be, and agriculture will become the most reputable and the greatest profession in the United States, because Nature has so ordained. *We can, and will raise up such statesmen as we need, whenever we shall unite and resolve upon it.*

Just at this time, the political parties of the country have got into a giddy whirl: they are divided and scattered into factions, each of which is in the minority—no one can, by itself, rule the country; therefore, now is the appropriate time for the farmers to make a solemn declaration of their own equal rights in this Confederacy. If we could now have a Convention of farmers (no politicians of any party); if we could have one assemblage of talented farmers from all parts of the Union, such a convention would do away all sectional discord, and materially and beneficially change the policy of the government. Mental culture as well as agriculture, and all our industrial pursuits would rapidly advance, and former dreams of Republican prosperity would soon become realities.

What say the intelligent editors of our thirty-eight Agricultural journals? What say the numerous able contributors? Shall we have such a Convention? Shall it meet in the year 1859, and deliberate a week or two in earnest for the good of our country and especially our profession? I know there are hundreds of patriotic farmers

who would freely spend the time and money required to hold such a Convention. Popular sentiment is ready for it, provided all our agricultural journals agree upon it, and they ought to take the lead. We hope all will speak freely upon this subject.

With deference and respect,

F. H. GORDON.

Sugartree Farm (near Rome), Tenn., Feb., 1859.

BOLL WORM INSECT---BIBB'S PATENT.

EDITORS SOUTHERN CULTIVATOR—In this, my first communication, I promise to deal in plain, stubborn facts—facts, proven by experience, and, if any contributor to your excellent *Cultivator* should feel his *experience aggrieved* in reading these “facts,” let him “stand from under,” or else, take up his pen and wage a war to the last drop of ink in the “stand.” So much by way of introduction.

Here, in the northern portion of Mississippi, we have as fine a farming country as the sun has yet shone upon (I refer to the prairies of Monroe and Lowndes counties) unlike any other soil I have ever seen, requiring a different mode of cultivation. What I consider the proper cultivation of this peculiar soil I shall possibly make the subject of another communication. Allow me, in this, however, to hint that the continued growing of one crop, without ever rotating, upon the finest land in cultivation, will entirely exhaust and render it worthless in a few years. All farmers are aware of this, and yet how few profit by it.

These Prairies were once covered with a dense mat of grass, weeds, &c., the soil being fed continually by a large amount of decomposing vegetation, the natural soil containing large quantities of shells and lime in almost every conceivable form, together with other necessary chemical compounds, making the soil capable of the highest productive qualities. In this condition it was found and settled—the heavy surface of grass and weeds were turned under by large plows, and cotton and corn grew in perfection—large crops were soon gathered—one bale to an acre was a common yield—by some, fourteen bales were made to the “hand.” Nothing was allowed to grow in the field but the planted crops; grass and weeds were almost considered a disgrace; the farms were as clean as an eastern garden; the farmer would defy you to produce a hatful of grass from his entire farm. In preparing the land for a crop, the cotton and corn stalks of the previous year were all carefully piled up, thrown in heaps and burned—time could not be spared to haul off cotton seed, which rotted in large heaps at the gin house. It seemed never once to occur to the farmer to restore something to his land until, worn out by constant drainage, it refused to yield so bountifully. This despicable system of *clean culture* has well nigh ruined our prairie lands. I confess the soil is as black and, *apparently*, as rich as ever, yet it does not yield one-half as much as formerly. I, therefore, class this mode of culture under the head of “downright foolishness.”

I am not an advocate of *foul farming*; but believe in returning to the sail *something*, whether it be in the rotation of crops or a portion of the farm lying out resting, sowing small grains or a crop of peas in the corn, or at least, giving back to the soil the cotton and corn stalks. Our lands are now rich in some things, yet literally *im-poverished* for want of vegetable matter in its composition.

With us, the cotton crop has got to be the most uncertain of all others, and subject to more disasters than ever cursed the land of Egypt. Grant that it escapes the early frosts of spring, the cold rains, “sore shin,” crawfish, rust and insect, and that even in July, the prospect was never so flattering, let there be but a few more rains than are needed, the *miller* makes its appearance and in flying

about, deposits its larvae on every stalk in the field, and in twenty days the cotton bolls are but empty, rotting, stinking hulls—the “second growth” has made a mass of large, thick, heavy leaves—tender “water shoots,” and all over the field, the best prospect in the world for *non-payment of debts* and *extended bills* on January 1st following. What has brought about this great change in the production of our soil? Why this exhaustion of the soil? Why these unnumbered disasters? if, in a great degree, it be not through a system of bad cultivation, then give me a reason, ye learned “cotton headed” savans of the prairie. The insect, or “cotton louse,” frequently injures the crop in the spring.

In reading your *Cultivator* I find various opinions advanced in regard to what it is that produces this insect. Seeing them in great numbers on my cotton last spring, and desiring to find out what produced them, I experimented sufficiently to satisfy my mind of their origin, habits, &c. They are deposited on the leaf by a small black ant; a few days after the hatching out of the egg they have wings and can fly about. If now taken and placed under a glass, in a few days they will shed off their wings and are nothing more than the common little black ant.

I experimented, also, with the boll worm, and may, at some future time, give you the result of my observations with regard to them. I will say now, however, that the prevailing idea of their hibernating in the cotton or corn stalk is *false in the extreme*. *I am prepared to prove this assertion.*

Wm. H. Bibb, a citizen of this county, claims to have invented a plan for destroying the miller, which produces the boll worm—he has procured a patent for it. It is simply a lamp set in a large tin pan—in the pan there is molasses; it is lit up at night and placed on a pole some six feet high; the moth flies against the glass and falls in the molasses below. One lamp caught two thousand moths in one night, whilst testing it last summer.

Now, my dear Editors, if you can make this communication in anything like “ship-shape,” you will have performed an “Herculean task.”

HOMESPUN.

Prairie Home, Feb., 1859.

EDUCATION OF ENGLISH GIRLS.

BY REV. J. C. BODWELL.

Step into Moseley's in Summer street, and you will see one indication of a good time coming for daughters—ladies' boots, with soles of a thickness which it will cheer every man's heart to look at—and *fashionable*, too—the very latest fashion! Now, is it not a matter for rejoicing and even for devout gratitude, that it is actually fashionable for women to wear shoes which will keep their feet dry and warm?

Our countrywomen have long endured great and cruel hardships in this particular, compelled to wear so flimsy an article as if all the shomakers were in league with consumption and death; while their husbands and brothers have walked by their side in boots which protected them from all harm. This hardship and cruel inequality of the sexes has been national, as the custom of pinching the feet of women has been peculiar to the Chinese. European women have been wearing the very description of boots and shoes which is now fast becoming fashionable with us, never dreaming of anything else as at all consistent with common sense. English duchesses have worn shoes from time immemorial which our country misses would have considered very vulgar. And so English duchesses have retained their plumpness and bloom and joyous health to fifty and sixty years of age, while our women

have lost the last rose before thirty, and have gone in frightful numbers to an early grave.

This whole subject of the training of our girls must undergo a thorough revision. Many other things need looking after besides shoes. Our climate has, unquestionably, something to do in transforming the round and ruddy Anglo-Saxon lass to the pale and slender miss of Boston and New York. But sadly defective education does a great deal more. This differences in the training of English and American girls begin in the nursery, dating from the first weeks of existence, and extend over the entire period from infancy to ripe womanhood. As it is my desire to furnish something that may be useful, rather than entertaining, I shall speak very plainly, and somewhat in detail.

One of the first maxims applied to the management of both girls and boys in England is, in the words of one of their old physicians, "plenty of flannel, plenty of milk and plenty of sleep." I am quite sure that a great many of our young mothers do not understand the importance of every part of this maxim. It does not require a professional eye to discern that many an infant suffers from want of flannel, although the inexperienced mother has no conception of it. The child looks warm, and is warm to the touch, but is irritable, restless, unable to sleep. Were you never troubled through the night without knowing the reason, till you awoke in the morning and found that though you had not any sense of chilliness, yet you had wanted more covering to make you sleep soundly? Infants require a great deal of warmth, and cannot be healthy without it.

As to food, every mother in England understands that an infant must not be fed with all kinds of trash, gingerbread, cake, pie, &c. Nothing of the kind is permitted to be given them. The shops of London—grocers, druggists, and pastry cooks—abound in simple articles of diet, prepared especially for infants, as "biscuit powder," "baked flour," "tops and bottoms," "patent American corn flour," "arabica revelenta," &c., &c. "Plain, simple and nutritious," is the rule here. Through the entire period of childhood, and even of youth, the diet of English girls is extremely simple. No tea and coffee, no hot bread—indeed it is a very common rule in well ordered English families that no bread must be cut, for old or young, till the second day from the baking—and very little of pastry or sweet meats of any kind. Plain bread and milk, and fresh beef and mutton, roasted, or boiled or broiled—not baked nor fried—with plenty of vegetables, make up the principal food for English children. Pork, veal and salted meats are allowed very sparingly, as all English mothers know that they are difficult to digest, and especially injurious to a child that has the slightest constitutional tendency to scrofula.

A well-lighted nursery is considered indispensable, as it is well understood that a dark nursery will kill a scrofulous child. Their odious and abominable window-tax, modified and relieved of its worst features within a few years, makes Englishmen anxious to get as much light as possible into their dwellings, whereas we cover our houses with windows to an absurd extent and then, still more absurdly, and very injudiciously, beyond all question, shut out nearly all the light with blinds.

English children must have abundance of fresh out-door air, every day if possible; and an important part of the duty of the nurse-maid is to take the children out several hours every fine day, including the infant. One of the most beautiful pictures in the London parks, and indeed everywhere all over England, is the innumerable nurse-maids, themselves radiant with health, with their still more innumerable children. Thus the English girl is early trained to a habit and love of walking which she never loses, and in this way secures round limbs, and ex-

panded chest and ruddy countenance while still a child. It is hardly necessary to say that the shoes of English children have thick soles and that their clothing throughout is very carefully adapted to the season and the weather.

I am afraid American mothers will laugh when I say that the mothers of England are very particular not to allow their children, before they are old enough to walk, to sit much on the carpet, as it is a posture unfavorable to erectness and fullness of figure. They are, therefore, taught with special pains to roll themselves on the carpet, and to lie on the stomach, all of which have a direct tendency to secure a perpendicular spinal column and broad, full chest.

It is a beautiful feature of English families, that the children, instead of being pushed into a precocious maturity of dress and manners, and habits, are *children* all along; their parents love to have it so—simple, free, joyous, playing, laughing and romping all they can. It is not the least of the advantages of this, that when womanhood comes, as come it will, in spite of everything, it sets easily and gracefully upon them.

English children do not go to fashionable parties or keep late hours. It is a special study to provide them abundance of healthy sports, and, above all, to make home radiant with cheerfulness through the day; and, when the night comes, the young misses instead of staying up and being called ladies, are called girls, and sent to bed.—*Happy Home.*

CORN AND COTTON CULTURE IN SOUTH Western Georgia.

EDITORS SOUTHERN CULTIVATOR—Together with my subscription for the *Cultivator* I send you plan of farming somewhat peculiar to our immediate locality:

Corn follows cotton. The land is broken up or bedded up just at the time we plant. The rows are three feet and a half apart, and the corn spaced in the drill according to the strength of the land. The first working is about the tenth or fifteenth of May, by running around it with a double plow invented ten years ago by the late Mr. Abner Ward, of our neighborhood. It consists of a wooden beam with iron feet, to which small sweeps or hoes are attached. (His family are making arrangements for a patent.) By running around the corn it plows out the rows thoroughly; the hoes follow after, thinning the corn which is then from half leg to knee high, and trimming around the trees and stumps and at the end of the rows. In three weeks it is generally bunching to tassel. The plows run around it again, and, if it should rain about that time, so as to prevent the grass from dying, the hoes go over it again; if not, it is "laid bye."

In using these plows, each hand has two mules and changes at twelve. So a hand does just about double the plowing as he would with an ordinary stock, and we have only half the number of hands at the plow. The mules keep in better order when they pull them a half day than the ordinary plow all day. Ours is a soft and sandy land. Our corn is made by running around it three times and one hoeing, and the average of it will compare favorably with any corn raised in Middle Georgia. The average crop is from twelve and a half to twenty-five bushels to the acre.

Our cotton is mostly planted on stubble land and land that has been lying out a year. We make from two to three plantings. The first about the 1st of April, the second from the 15th to the 20th of April, and the 3d from the last of April to the 10th of May. For the following reasons, viz: Some land will bear planting early. Some lands will mature a crop earlier than others, and this plan gives a better chance at the seasons; and, lastly, we can cultivate more of it and easier. The first planting is

generally worked over before we plow our corn. The *modus operandi* of the after culture of the cotton would be too lengthy for this communication. We cultivate from twenty-five to thirty acres to the hand, besides small grain enough for our families, raise our own meat, and make from five to twelve bales to the hand, weighing 500 lbs., and, in a few instances, have exceeded that amount.

This plan of farming has been followed here for ten years with uniform success.

The South Western Railroad is nearly completed through our county. Lands are plentiful and cheap enough. We have flourishing schools and Colleges. South Western Georgia is healthy and productive, and holds out a great many inducements for emigrants.

B. J. B.

Shell Rock, Randolph Co., Ga., Feb., 1859.

BERMUDA GRASS.

EDITORS SOUTHERN CULTIVATOR—Whilst I am ever willing to do all I can to promote the best interests of my fellows, I do not relish farmers—planters if you will—using a fictitious name either when seeking information or in holding up the tricks of traders. I like an open field and a fair fight.

No one objects more to have his name before the public than myself, and if feeling was alone considered, it should not be given. Of course, there are those who attribute to me other motives, but I can only say, "evil to him who evil thinks." I can understand why a gentleman would dislike to see his name bandied about, but I cannot feel, appreciate any glory or honor in it, unless he gives up to an evil, that a greater good does result—to him an evil in using his name, to the public good.

Some of your correspondents, in former numbers, call on me for information. Cheerfully I give it.

The history of the Bermuda can be found in books. My knowledge of it is: in 1819, I think, Mr. Aynsley Hall, then a merchant in Columbia, S. C., doing the most extensive business, brought this grass from the East Indies, I think was said, and my father, being at that time in daily association with him, procured a portion and planted it in our yard, between house and kitchen and garden. Since writing this much, I now think it was before 1819, for said yard was a perfect mat of this grass, and I think the children played theron before our father's death—in 1821.

I have the Bermuda now, and have had it here, brought from 3 or 4 different points, among them St. Jago de Cuba. I brought it here knowing all the "bug-a-boo" stories of it, and my friend, Mr. G. D. Harman, is engaged in preparing and for extending its culture. I have made over 1500 pounds of cotton and 40 bushels of corn from acres, where if the grass was let alone for a year it would cover.

As to Meadow Grass, Mr. John Farrar may have never seen Bermuda Grass in a favorable location, nor kept as meadow, for mowing, and still his never seeing such, does not make Mr. Affleck nor myself story-tellers. Until after a rich piece of land, well prepared and *fully set* in Bermuda fails to grow high enough to be a mowing grass, I hope Mr. Farrar and "Parara," will not doubt. Col. Knight, of Adams county, Miss., had a sample in 1842. I think, at a Fair in Washington, brought to convince me that it grew high enough to mow—fully 12 inches high and over. The land was shown me, on the south of a bayou, and subject to annual overflows. The part where Mr. Affleck gathered and sold largely, was rolling land, growth almost entirely Magnolia, and rich enough to brag on.

I think it can be eradicated. Have always had too much to do to try. A freeze, they say, at 20° will kill it, but we cannot have all the roots exposed, even by two, three or four different plowings and freezings. I would advise

to plant land thoroughly, say in oats, sow down 1 1-2 to 3 bushels of oats per acre, the more that the land will bear the better, enough not to need *tilling* to make a crop. When oats are removed, plow thoroughly and sow peas broadcast, 3 to 6 pecks per acre, and harrow thoroughly. This will destroy it, in my opinion, in three years, (where the plow touches); around trees and stumps, &c., it will not.

As to varieties, I never saw but one Bermuda. I saw, in the immediate vicinity of Augusta, what was called Bermuda, but one who knew the thing pointed it out, ten feet off, as not, and another as the thing. On poor spots it does not look as it does on rich spots. As to its value, I would not be without it. Acre for acre, it will feed more mules, horses, cattle, sheep and hogs than will corn and a Cob Crusher thrown in.

Yours, &c.,
M. W. PHILIPS.

Edwards, Miss., Feb., 1859.

THE HUMAN VOICE—ITS EFFECT ON ANIMALS.

A correspondent of "The Field," says:—"No sound, however loud, whether produced by a cannon or a fowling-piece, causes the same amount of terror amongst wild animals and wild birds as the human voice. I have always known more grouse to be sprung by sportsmen speaking to their dogs, or to each other, on the mountains, in the shooting season, than by any other cause: and it is a rule of mine only to make use of the whistle and signs to my dogs, such as taking off my hat, &c., and a wicked or cross look has often more good effect upon a dog than a whipping. So, likewise in snipe-shooting, one word spoken, springs more birds than twenty shots. If you go to a rabbit-burrow to ferret, you may bang away all day with your gun and the rabbits will still bolt; but once commence speaking and your sport is over, the ferret lies in, and the rabbits submit to certain death sooner than to move towards your voice. Partridges are so much accustomed to the loud voices of farmers and laborers, that, generally speaking, you may talk as much as you like in pursuit of them. Nothing proves the power of man over the brute creation more than his voice. Even in the thickest jungles, wild beasts will skulk away if they hear him speak."

PROFITS OF FARMING—ONCE MORE.

| | |
|---|-------------|
| Land | \$ 9,000 |
| Negroes | 20,000 |
| Stock, Provisions, &c. | 4,871 |
| | |
| Total | \$33,871 |
| Amount sold from farm during the year, embracing all articles | \$6,395 70 |
| Increase of negroes | 850 00 |
| Increase of stock, &c. | 390 90 |
| | |
| Expenses of all kinds | \$7,635 70 |
| | |
| Leaving | \$2,103 17 |
| | |
| 16 1-2 per cent. on capital is | \$5,532 53 |
| | |
| Leaving | \$ 5,504 04 |
| | |
| Leaving | \$ 28 49 |

EDITORS SOUTHERN CULTIVATOR—For the last preceding three years I have given, in the *Central Georgian*, the result of my farming profits, &c. In 1855, I made 10 per cent.; in 1856, 8 1-2; in 1857, 12, and now, in 1858, I have made 16 1-2 per cent. on capital invested, as you will perceive from the figures above. This is no guess work. I keep an account of all expenses attending the

farm, then deducted from the receipts, will give the net income of the farm.

You will see from the above table, that my investment in farming—land, negroes, stock of all kind, plantation tools, provisions, &c., &c.—amounts \$33,871. The gross income—cotton, corn, bacon, wheat, potatoes, oats, shucks, fodder, &c., &c., sold from the farm during the year—amount to \$6,395.70; increase and growth of negroes, \$850; income of stock, &c., \$390. Making the sum of.....\$7,635.70
Expenses of all kinds off.....\$2,103.17
will give \$5,532.53-100, or 16 1/2 per cent. on capital invested. Pretty good for poor piney woods

Farmers, if they would give their farms credit for what they are entitled to, would be better satisfied than they seem to be. I feel well assured that it is the *very* best business for making money of all the vocations. I have given my farming profits to the public for the last four years, not with the view of letting the country know what I was making, so much as to induce farmers to investigate for themselves.

THOS. M. TURNER.

Sparta, Ga., Feb. 15, 1859.

CARE OF HORSES.

We may not hope to remove existing evils, simply by calling attention to them, but we can point them out, and leave the work of reform to whom it belongs. Let us confine ourselves, in this brief article, to some of the more prominent features in the care of horses.

Assuming that an animal which has good treatment, will be sound and healthy, while one does not receive this care will be diseased, we are led to believe that to promote the health and comfort, and to secure the kind treatment of animals under his charge, should be the constant aim of the breeder. It does not necessarily injure a horse to work, or to trot fast, provided he receives good care after performing the labor. The practice is an inhuman one, of driving a harse fast, and then putting him in the stable without a good brushing; or letting him stand where cold wind or night air comes upon him, without throwing a blanket over him as a protection. This is a simple matter, yet any one who neglects it, has no feeling for the health or comfort of his horse.

Feeding is an item of great importance in the care of horses; but, as every breeder has satisfied himself in regard to the best and most proper method, it will be unnecessary to treat of it at length. Be sure to avoid musty feed of whatever kind, whether hay, straw, corn, or grain. It is dear at any price, and should never be fed to a horse. Give only good, sweet, hay; and clean grain. It is an excellent plan to cut hay, and mix it with Indian meal or middlings. Salt the feed once a day, and as often as once a week throw in a small handful of wood ashes. Pure water should be provided with regularity. If this course is uniformly pursued, horses will seldom be troubled with any disease, but will be healthy and sound. If those who now feed dry hay without cutting, will try the plan given above, my word for it, it will not only be found cheaper, but your horses will look fifty per cent. better.

Horses should have plenty of room in a stable, and not too much deprived of the liberty of motion. Close confinement after hard work, is apt to abate their circulation too suddenly, make them chilly, and stiffen their joints. When horses are kept in stables, as they always are the coldest half, if not the whole of the year, the curry-comb and brush should be used faithfully every day. This treatment, will not only make them look better, but they will be more healthy, and have more courage and activity. It is a bad practice to omit this operation; more especially is it necessary after a hard day's work, when they begin to grow cold from being sweated by labor. Then it should never be omitted.

In warm weather, it would be better for the health of the horse if he were allowed his liberty, to roam at pleasure in the pastures, provided a shelter is afforded as a protection, both from the intense heat of the sun, and the damp, chilly atmosphere of night; as well as from cold winds and pelting storms. Horses that are worked every day in summer, should be kept on green fodder in the stable, in preference to grazing in pastures. It is no great burden to tend them; and a large quantity of manure will be saved.

Is there any good breeder who fails to perform these simple acts of kindness to his horse, contributing as they do in so large a degree to promote his health and comfort? Cannot our horses be kept in better order; receive more attention and greater kindness the coming winter, than they have previously? Is not the merciful man "merciful to his beast?"

S. L. B.,

[in American Stock Journal.

Brookdale Farm, Maine.

COTTON.

COTTON is King, and wields an astonishing influence over the world's commerce, and over the minds of those engaged in its production. We have often thought it too Kingly, and, if anything, too influential in its sway. The best of things are liable to abuse, and, however good and desirable, the ends are often perverted. But cotton is King, and absorbs the attention of Southern Planters, and however much exclusiveness may attach to its culture, the world goes on tolerably smooth, though not so prosperously as it would under a little different system from that pursued.

In contemplating the attention bestowed upon cotton in very many instances, we are forcibly reminded of the parent who fondly and affectionately takes one of his children to his bosom in love and confidence and coldly neglects the balance of his household. When we see the planter cultivating his cotton to the exclusion of his grain, to the neglect of his stock, and to the extent of impoverishing his land, we think of the unnatural parent, and feel, if it is right and just for that parent to love all his children and treat them equally well, it is equally incumbent on the planter not to become so absorbed in cotton culture as to neglect his grains, stock, improvements upon his farm, and the rendering his home more delightfully pleasant and prosperous.

It is right for us to grow as much cotton as we can; it is pleasing to contemplate a large crop; it is flattering to our vanity to be able to boast over our neighbors; but, in the summing up of accounts, if we have to buy corn, stock, and repair dilapidations the result of gross neglect, we shall find startling inroads upon our profits.

Our ambition should not be to plant the largest quantity, but only so much as we can work well and not to the neglect of equally important field products and adjuncts.

The planter should determine how much he can cultivate easily and well to the hand—when his mind is matured on this point, he should address himself to as perfect a preparation of his field for the seed as thought and physical industry will admit of. A great deal of loss is annually sustained by the crops driving the planter instead of his driving or keeping his crop in advance. To explain—time is not economically used at the beginning of the year—the season advances like a thief in the night upon the planter—it is then discovered that no time is to be lost—a rush to get cotton beds thrown up, corn land prepared and seed in them, characterises every movement—crops are sown—all come up together—for want of system in the beginning, up to the ears in grass is the consequence—negroes are driven—stock plowed to death, and a Tom Thumb plant meets the eye all over the field—

drouth comes, or a wet season sets in, and one's luck is cursed, and infidelity springs up in the heart. Planters, is not this more or less the case every year? It has a remedy, but that remedy can only be found in a more thorough tith. The true principle is to plant less of everything, and cultivate what you do plant thoroughly, and, rely on it, your profits will be greater. The quantity grown may be smaller, but the superiority of the article, and the enhanced value because of that superiority, will over balance greatly.—*Southern Rural Gentleman.*

CHINA BERRIES POISONOUS TO HOGS.

EDITORS SOUTHERN CULTIVATOR—Having experienced a fact, existing, in relation to the berry of the China tree, I have concluded to communicate the same to you, that, perchance, through the *Cultivator*, I may get the experience of others and learn a remedy, or, if none is known, perhaps sufficiently elicit the interest of others, to ascertain, by experiment or otherwise, something that would save our pigs when we find they have been eating these berries; for it is a fact that they will kill small pigs very soon, and, occasionally, old hogs, if they get too many; and those under a year old are not unfrequently killed by them. The effect they produce on hogs seems to be similar to that of strichnine on dogs; it deprives them of the use of their limbs for some little time before killing them, causing them to drop down frequently and suddenly with their feet doubled up under them, when in that position they seem to be easy, but on attempting to walk they show great uneasiness and restlessness, until down again, when they soon die in that way, without appearing to suffer any at all.

Now, have been losing a few pigs every spring for several years in this way (and usually the fattest are most apt to die from them) without having my attention particularly called to it until recently, having a fine lot of young pigs (just beginning to eat corn well) in a field where those berries were growing, and beginning to miss them, I found they were dying from eating the berries.

I had that trees immediately cut down and the berries all removed, since which time I have lost no more pigs. If you think this worth noticing in the *Cultivator*, you can give it a place therein, or call the attention of your readers to the subject and oblige a subscriber.

Very respectfully, F. G. STICKNEY.
Havana, Green Co., Ala., Feb., 1859.

MEASURING CORN IN BULK.

EDITORS SOUTHERN CULTIVATOR—In the March number of your valuable paper, just received, I notice your correspondent, "W. C. K." has endeavored to apply, without success, the four rules for measuring corn in the bulk, (crib, pen, or house) which appeared in your January number, on page 10, and proposes that some one inform him, how much is contained in a crib 20 feet, long, 15 feet wide and 9 feet deep. Having had some experience in making such calculations, I was induced to examine those rules, and found rule the 1st to do very nearly for shucked, or shelled corn, but not for corn in the shuck. The 4th rule is sufficiently correct for all practical purposes. The 2nd and 3rd rules are both incorrect, when compared with the former. The 2nd making more than contained in a given bulk, and the 3rd much more than the 2nd.

By the 1st rule for (for shucked corn) the above named crib will contain 216 barrels. By the correct short rule, multiply the length, width and height together in feet and their product by 8, then cut off the right hand figure, and divide by 5 to turn it into bbls. (432). If the corn is shucked take one half, and add a half bushel for every hundred barrels, and you will have 217 barrels. If the corn has the shuck on, one-third of this product (432), when the

half bushel is added, will give 145 1-3 barrels [(fractions omitted.) If shelled corn, 432 barrels.

Rule the 4th is very nearly correct, as the dimensions in inches are to be calculated, and then divided by 2150. To make it perfect, multiply the length, width and height together in inches and divide the product by 2150.40 (a Winchester bushel) and you will get the precise contents, in bushels, of any crib, pen or house. The crib named above, of 20x15x9, by this rule, will contain 217 barrels of shelled corn (fractions omitted), and the same quantity as rule the 1st, after deducting for shuck and cob.

As corn varies so much in quantity of shuck and size of cob, it is impossible to make a precise calculation for any other than shelled corn. In this section of country the custom is to take off one-third for the shuck, and one-half of the remainder for cob. But when the shuck has been partially taken off, or the cob larger or smaller than usual, the buyer and seller can agree between themselves as to the deduction. In the absence of a special contract, the customary rules govern.

If you think the foregoing will be of any value to your readers, I shall be repaid for the time consumed in giving the correct rules for measuring corn in the crib.

Yours very respectfully, R. B. N.

February, 1859.

FISH PONDS.

EDITORS SOUTHERN CULTIVATOR—Some years ago there was a good deal said in the *Cultivator* about "stocking" any waters with any desired kind of fish. Can it be done? If so, can we raise White Shad in Mississippi? We can make ponds here from 10 to 15 feet deep, supplied entirely by rain water.

It is some time since we had the pleasure of sitting down to a dish of fresh fried shad. We remember, too, that the Rock Fish was very palatable, fresh from the waters of Pee-Dee.

If such a thing is practicable, where and how can we get the stock? And some directions, as to food and management of fish and pond, will be very acceptable, (as many things in the *Cultivator* are) to more than one of your subscribers. Very truly, J. C., M.D.

Port Gibson, Miss., Feb., 1859.

[We have not room, in present number, for the details of Pisciculture required by our correspondent; but may give a chapter on the subject hereafter. Dr. GARLICK's work, published by A. O. MOORE & CO., 140 Fulton st., New York; and "Artificial Fish Breeding," from the press of D. APPLETON & CO., New York, contain a great amount of information on this subject.—Eis.]

HUNGARIAN GRASS—A correspondent of *Emery's Journal*, says:

"You ask if Hungarian Grass is profitable for extensive cultivation. I affirm that it is. First, one acre sown to Hungarian Grass will yield as much as two acres of Timothy, and the hay is as good as common hay and oats. Horses at ordinary work require no other feed, and it will make their coat look sleek and glossy. Second, there can be two good crops grown on the same ground in one season of 4 tons per acre. I think one ton of it as good as 2 tons of Timothy. My experience in growing it is: It wants dry land; harrow the ground once before and once after; roll it by all means, as that is of the most importance. I sow one half bushel of seed to the acre for hay, and one-third of a bushel for seed. Cut it when the seed has grown to full size, and cure as long again as other hay; stack well and top it up with Slough Grass. No farmer will do without it after he has used it once."

THE "TOM-BOY."

SOME parents seem still to entertain the notion that young girls need no training except that of the mental faculties; that their forms are of less consequence than their dresses; and that a development of physical strength would impair their delicacy, and tend to make them masculine. By restricting their physical education and limiting their sphere of activity, they are condemned for life to enfeebled health, and an aimless, idle existence. Let such parents ponder the truth embodied in the following remarks, which we cut from the *Home Journal*:

"The 'Tom-boy' is an eager, earnest, impulsive, bright-eyed, glad-hearted, kind-souled specimen of the genus *feminæ*. If her laugh is a little too frequent, and her tone a trifle too emphatic, we are willing to overlook these for the sake of the true life and exulting vitality to which they are the 'escape valves'; and indeed we rather like the high pressure nature which must close off its superfluous 'steam' in such ebullitions. The glancing eye, the glowing cheek, the fresh, balmy breath, the lithe and graceful play of the limbs, tell a tale of healthy and vigorous physical development which is nature's best beauty. The soul and the mind will be developed also in due time, and we shall have before us a woman, in the highest sense of the term.

"When the 'Tom-boy' has sprung up to a healthful and vigorous womanhood she will be ready to take hold of the duties of life, to become a worker in the great system of humanity. She will not sit down to sigh over the 'work given her to do,' to simper nonsense, languish in *ennui*, or, fall sick at heart—but she will ever be able to take up her burden of duty. In her track there will be sound philosophy, in her thoughts boldness and originality, in her heart heaven's own purity, and the 'world' will be better that she has lived in it." To her allotted task, she will bring health, vigor, energy, and spirits, and these will give her both the power and the endurance without which her life must be, in some respects at least, a failure."

PROTECTION AGAINST DROUGHT.

THE frequent stirring of soils between the rows is undoubtedly a protection, and, in ordinary cases, sufficient protection against drought. The air passes freely through soils frequently stirred; and whenever air comes in contact with a body colder than itself, it deposits moisture, as in a tumbler filled with ice water at the dinner table, or in particles of a soil at some inches depth, and consequently colder than the air above the surface. When the farmer sees his tumbler sweat, as it is sometimes expressed, he may be assured that so it fares with the soil six or eight inches below a well-stirred surface, provided the soil were mellowed to that or a greater depth before the crop was put in.

The great source of protection in our country is in deep plowing. On a soil of any decent consistency, it would be impossible that a crop should suffer from drought if the soil were pulverized to a depth of fifteen inches, because the lower portion of such a soil would retain moisture till long after the surface should have received new supplies from the clouds. If our readers are alarmed at fifteen inches as a depth which they despair of reaching, we think them too easily alarmed, but still we will meet them on higher ground. A field thoroughly pulverized to a depth of ten inches will seldom suffer from the drought. Abundant and reliable testimonies have been published, going to show that fields plowed to a depth of eight or ten inches have escaped unhurt, when other fields, equally well cultivated, with the single exception that they were

plowed but half as deep, utterly failed of giving crops. That deep plowing is a sufficient remedy against any ordinary drought—any but the very longest and severest—is an established truth.—*Plough, Loom and Avul.*

SHEEP---AND FISH PONDS.

EDITORS SOUTHERN CULTIVATORS—I have been on a plantation nearly two years, and, having become interested in the raising of sheep deem it proper that I should give you my experience in that department of plantation economy. My little flock contains but 43 sheep, of which there are 3 bucks, 14 wethers and 26 ewes. They had proper attention, and were in fine condition all summer; and after the gathering of the crop the sheep were turned into the fields.

Last September I sowed about six acres in barley, the ground having been made very rich by stable manure, and the lot has presented a beautiful appearance all winter. As fast as the lambs came they, with the ewes, were put into the barley lot; and now I can show 35 of as fat lambs, and a little flock of as fat sheep as any one can. During the month of May next, I will separate the lambs from the ewes, so as to insure early lambs next year.

In Fish Culture I have been very successful, and have caused to be made three ponds, which are supplied by bold springs of pure and limpid water; and, though I commenced this department of the "pleasures of hope" less than twelve months ago, I think that I can show 20,000 at any time. My "Loch Lomond" is the largest pond I have, it is 65 feet by 225 feet, with a depth of water at one end of 15 inches with a gradual increase to 5 feet at the other. This is intended for bream, trout and shad.

In fruits, I have made a commencement, and at this time I have planted 1,300 cuttings of the finest Grape, 212 choice Apple trees, and 110 of the finest Pear trees.

JOHN C. CARMICHAEL.

Greensboro, Ga., March, 1859

FRICITION GIN GEAR.

EDITORS SOUTHERN CULTIVATOR—Please allow me to answer, through your columns, several gentlemen who have addressed me on the subject of Friction Gin Gear.

In the case reported to your journal there was no alteration in the relative size of parts whatever. Opposing surfaces were substituted for cogs. That is all my present knowledge on the subject. Of course, however, such an arrangement will require the utmost nicety of workmanship, and in my own case (now progressing), unless I can secure a good workman, I shall stand by the cogs. I understand that this principle has been applied for many years in parts of the State, and would like, myself, to hear more on the subject from the more experienced.

Respectfully, T.

Torch Hill, Ga., Feb., 1859.

CHLOROFORM FOR BOBS AND COLIC, &c.

EDITORS SOUTHERN CULTIVATOR—In the *Cultivator* for November, 1857, I saw chloroform recommended for both the Colic and Bots in Horses. About four weeks since, I had a horse suddenly taken very sick; as I did not know what was the matter with him, I concluded to administer a dose of chloroform, which I did according to the direction then given, and the horse was well in about half an hour.

I will mention one other instance in which one number of the *Cultivator* has been worth, to me, ten years' subscription. My wife never could make light bread, until she tried according to directions which she saw in your valuable journal. Now she can make it most excellent.

J. A. M.

Louisiana.

PLANTING IMPLEMENTS.

It is manifest to every Southern planter that the system of cultivation necessary to good and remunerative crops is a peculiar one: hence the necessity and importance of implements correspondingly peculiar that are to be used upon the plantation. What we mean is, implements for plantation use should originate with those who know their use and importance, should be conceived and manufactured expressly for the work they are to perform and that an instrument suited to the working of a Northern farm, though fully suited to its work there, may prove wholly worthless to us; at least, may occasion a great deal of loss in more ways than one. Every planter, who gives himself up to a proper study of his business, knows precisely what kind of implements suits him. How much better it would be then, for him, and each and every one, to design such as are precisely of the kind wanted, take the model to some good smith, and have the precise thing made. It would save a vast deal of tinkering on Northern work to make it answer, and a great deal of vexation of spirit which every one, we imagine, would very willingly be relieved from. Besides, there is a pleasant independence about the matter—'tis beneficial to the mind—makes one feel he is living and working to some purpose.

Let a planter have just such implements, as he knows will answer his ends, manufactured under his own direction for the preparation of his land—others for planting—others for the different kinds of workings of the plants, &c., &c., and, though it may be at a little more outlay of money, our word for it, his satisfaction will be greater, his work better done, and his fields more fruitful.

The implements a planter uses is no trifling consideration in agricultural progress, and it is really censurable for one to work with inferior tools when superior ones can be equally as easy had—to be content with little, when much can be as easily attained—to stand still, when it requires little or no effort to move ahead to wander off for elements of good, when every needful one surrounds and is with him all the time, and to purchase implements of husbandry, which are manufactured elsewhere just for money and without an eye to their adaptation, when he can so easily have a different sett right at his own door—just the kind he wants—by a very little extra application of mind, and a veiy little attention to every ramification of his business. This is a matter which deserves the attention of the Southern planter, and one which should be more practically carried out.—*Southern Rural Gentleman.*

INTERMARRIAGE OF COUSINS.

EDITORS SOUTHERN CULTIVATOR—In looking over the March number of the *Cultivator* my attention was drawn to an address delivered by Dr. Lee, "On Hereditary Blood in Man and other Mammalia," in the course of which he stated that an act was passed in the Georgia Legislature "imposing pains and penalties" in any case where cousins should marry.

I was under the impression that such a "bill" was offered but did not pass but one house, having been lost in the Senate.

I would be glad if you would inform me correctly in regard to one particular point, viz: "Did such an act become a law in Georgia?"

An answer in your next will greatly oblige

"ALMO."

Alabama, February, 1859.

REMARKS BY THE EDITOR.—The Bill referred to passed one branch of the Legislature, and was lost in the other.

THEY HAVE NO HOMES

If we look well into the causes of the increase of crime, and the growing corruption and immorality in our great commercial metropolis, we cannot fail to find one of the *conditions* of existence in that city, which undoubtedly exercises an important influence. The people of New York have not room to live comfortably, nor even decently. The mass of the population, as well as many whose circumstances are considered good, have to exist in quarters so confined as to cause many deficiencies which good morals require. They are crowded into dwelling in such numbers as to render the air unwholesome, and forbid purification. Neither physical nor moral health can exist where people are packed into apartments too contracted to afford the ordinary comfort and conveniences of life. There is nothing like *home* in such dwellings—nothing like the social and friendly intercourse, and fire-side amusement and recreation, which makes home under any other circumstances. The crowding of several families into a dwelling fit but for one, gives rise to bickering which destroys anything like satisfaction in domestic circles. One consequence of this manner of life is seen in the fondness of the New Yorkers for public amusements. Many of them regard their dwellings as merely places to eat and sleep in. They spend their hours of recreation, as well as business, away from their unattractive places of abode.

Another pernicious result of this manner of living is seen in the desire of families to live in hotels and boarding houses. Nineteen-twentieths of the people here can not afford the expense of a *home*; and those who might, are too much bent on making a display of their wealth to think of what makes real happiness. Certain physical comforts and conveniences, as well as room, are utterly necessary for the proper home education of children; where these are wanting, the morals of a community must suffer.—*Home Journal.*

EATING FRUIT.—No liquid of any description should be drank within an hour after eating fruits, nor anything else be eaten within two or three hours afterwards—thus, time being allowed for them to pass out of the stomach, the system derives from them all their enlivening, cooling and opening influences. The great rule is, eat fruits in their natural state, without eating or drinking anything for at least two hours afterwards. With these restrictions, fruit and berries may be eaten with moderation during any hour of the day, and without getting tired of them, or ceasing to be benefited by them during the whole season. It is a great waste of lusciousness that fruits and berries, in their natural state, are not made the sole dessert of our meals, for three-fourths of the year; human enjoyment, and health, and even life, would be promoted by it.—*Hall's Journal of Health.*

TANNING SKINS WITH THE HAIR ON.—E. E. M., Jr., writes that the following is the best mode of curing skins with the hair on:—Take alum, salt and saltpetre in equal parts; mix them together and pound them fine. Then spread the skin on a board, and put on the mixture before mentioned; roll it up so as not to have the outside touch the inside. In a few days open it, and scrape the grease off, which can be done very easily, and your skins is tanned. It will be soft and pliable for any use.—*Boston Cultivator.*

 Let no man be ashamed of work, a hard hand, and a sun-burnt brow.

 Time never sits heavily on us but when badly employed.

SOUTHERN CULTIVATOR.



N. CRR. ST. N.Y.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

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NO. 5.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M. D., and D. REDMOND, Editors.

See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—May is one of our busiest months on the plantation, and no one who desires to make a good crop can afford to lose a moment from the field now.

Corn, if not already brought to a "stand," must be properly worked at once; first "running round," close to the row and deep, with a long "bull tongue," after which keep the ground stirred between the rows, as often as once every 10 or 15 days, running quite "shallow" with a harrow, cultivator or a horse hoe, followed by hand hoes to clean and mellow the space between the hills. Do not break any roots, or use the turning plow, at all, in working this crop; *surface-culture*, after the first working, being the proper mode.

Cotton must be brought to a "stand," and scraped and moulded, without delay. The moulding must be done as soon after scraping as possible, so that the roots of the young plants may not be left exposed to the scorching effects of the sun.

Oats, Rye, and perhaps Wheat, may be cut in some places, the last of this month, and the ground afterwards planted in Sweet Potatoes "draws," or Cow Peas.

Cow Peas should be now sown broadcast or drilled, in deeply plowed and well manured land. If intended for hay, the land must be rich; if seed only is desired, moderately fertile land will answer. Sow Peas, also, broadcast, to turn under as green manure.

Sweet Potatoes should be planted extensively, as heretofore recommended. Select a rainy or a cloudy day, or the cool of the evening (from 4 P. M., till sundown) for setting your "draws"—dip the roots in a batter of water thickened with fine rich soil, make holes with a pointed stick ("dibble")—set the "draws" deep into the mellow ground, and press the earth firmly around them.

Sow Corn in drills for fodder—opening the drill wide and deep with a long shovel, and scattering the corn along in it at the rate of about 3 bushels per acre. It may be cut when in the tassel, and feed green, or dried for winter

use. Sow, also, Chinese Sugar Cane, for fodder in the same way, and try it for hay. It may be cut two or three times, but if allowed to stand, it will mature its seed if planted even as late as the middle of June or 1st of July. Make the ground very deep and rich, as previously directed.

THE VEGETABLE GARDEN.—Transplant Egg Plants, and continue planting Snap Beans every 10 or 12 days.

Hill up Bush Beans, before blooming, to keep them upright when bearing.

Work carefully around Melons and Cucumbers with a pronged hoe—prune the vines so as to distribute the fruit equally, and if the striped bug is troublesome, try the effects of sprinkling the vine with weak camphor water, which is made by tying up in muslin, a piece of gum camphor as large as an egg and infusing it in a barrel of rain water. To prevent the wind from bundling up the vines, throw a shovelful of dirt upon them, here and there. The main point, however, in this month, is the proper thinning of the crop. Never leave but two, or, at most, three plants, of Melons, Cucumbers or Squashes in each hill.

All vegetables will be greatly benefitted by a judicious thinning, for a crowded growth is just as injurious to them as if they were overgrown with weeds.

Hoe and stir the soil frequently around your plants, and, whenever you possibly can, mulch them; it will improve them wonderfully.

Plant out Tomatoes towards the end of this month for a late crop, and nip them down until the early patch is giving out; then let them go to fruit, and you will have plenty until frost.

Sow Cabbage seed the latter part of this month, for fall and winter use. Flat Dutch and Bergen are the best. Try, also, the genuine "Buncombe" seed, if you can obtain it.

Transplant Leeks—they will be fit for use all next winter.

If you are raising Onions from the black seed, thin out the rows and transplant. Such transplanted Onions will come in late, and last till Christmas.

Finish cutting Asparagus by the middle of this month, or the 1st of June, at farthest.

Continue to plant Okra, Squashes and Melons of the different varieties, Lima (or Butter) Beans, Sweet Corn. Transplant the Tomato, Pepper, Cabbage, Cauliflower, Celery, &c.. Plant Carrots, Beets, Salsify, Parsnips, &c., for a succession.

Now is, also, the proper time to feed your plants with liquid manure, [say one pound of Peruvian Guano or two pounds of hen manure dissolved in 10 gallons of water]

Once a week is enough, and give plenty of pure water after the application of the manure.

The Strawberry patch should receive a good working with pronged hoes, to avoid injuring the roots. After thus loosening up the soil, replace the mulching, and there will be little trouble with the weeds for the remainder of the season. If cultivating solely for fruit, the runners must be scrupulously kept down.

Weeds will now begin to infest your garden, and must be ruthlessly destroyed at their first appearance.

THE ORCHARD AND FRUIT GARDEN.—Destroy Catterpillar's nests wherever found on your fruit trees. If the branches are crowded or over-laden with thickly-set fruit thin out one half of it, and the remainder will be enough better to pay for the trouble.

Dust over the Plum and Nectarine trees with a mixture of quick lime, ashes and sulphur, while the dew is on the leaves, to destroy the curculio.

THE FLOWER GARDEN.—Shade, water, weed, cultivate and mulch your flowers and notice the general directions for last month in this department.

THE PHILOSOPHY OF TILLAGE.

In developing his philosophy of tillage, at page 236, TULL reaches the following conclusions:—"From all that has been said, these may be laid down as maxims, viz: that the same quantity of tillage will produce the same quantity of food in the same land; and that the same quantity of food will maintain the same quantity of vegetables."

The first named maxim is unquestionably sound and true, provided the conditions of the earth tilled are alike in all respects when the cultivation takes place. But the same quantity of tillage when the ground is too wet to plow will not produce the same amount of plant food that would be obtained if the earth was dry enough to break up into fine, pulverized particles. Again, it is known that the longer a field is tilled without rest or manure, the more adhesive, compact, and dead the clay and other earthy particles become; so that any given quantity of cultivation produces a smaller quantity of plant food, and less friability and comminution of soil as the stirred earth approaches exhaustion, and demands renovation. On the other hand, the length of time which some fields not flooded nor irrigated by a river or other stream, will remain fertile without manure, and by wise cultivation alone, is truly remarkable. TULL's long residence in France and Italy extended his observation of the results of cultivation alone in maintaining perennial fruitfulness. On the page above cited, he says: "A vineyard, if not tilled, will soon decay, even in rich ground, as may be seen in those in France, lying intermingled as our lands do, in common fields. Those lands of vines which, by reason of some law suit depending about them, lie a year or two untilled, produce no grapes, send out no shoots hardly; the leaves look yellow, and seem dead, in comparison with those on each side of them, which, being tilled, are full of fruit, and send out a hundred times more wood, and their leaves are large and flourishing; and continue to do so for ages, if the plow or hoe do not neglect them."

The experience of every man of years and close observation in vine culture will corroborate the remarks of this acute student of nature. The earth thoroughly stirred

by the implements of tillage yields, by the chemical decomposition of its own compounds, potash, salts of lime, and other minerals required to form the wood and fruit of the vine. All the leaves and trimmings of the plants produced every year being added to the soil to increase its mould, and the earthy elements which would form ashes in case these leaves and trimmings were burnt, its fertility in many vineyards needs no other fertilizers for centuries, if ever. What is really removed from the soil in fruit is fully restored from the atmosphere and the deep subsoil in a way which every cultivator ought to understand. Very pertinently does TULL call attention to the fact, that no change of crop is needed in vine culture for ages on the same ground. He says: "But what in the vineyards proves this thesis most fully is, that where they constantly till the low vines with the plow, which is almost the same with the hoe plow, the stems are planted about four feet asunder chequer-wise; so that they plow them *four ways*. When any of these plants happen to die, new ones are immediately planted in their room, and exactly in the points or angles where the others have rotted; else, if planted out of these angles, they would stand in the way of the plow. These young vines, I say, in the very graves, as it were, of their predecessors, grow, thrive, and prosper well, the soil being thus constantly tilled. If a plum tree, or any other plant had such tillage, it might as well succeed one of its own species, as these vines do."

The above remarks made about 140 years ago, bring us fairly to the point; how does tillage ever perpetuate fruitfulness without manure, for centuries in succession?

The supply of water and gases from the ever-moving atmosphere will not alone meet all the requirements of grape vines and their annual fruits; nor will any given amount of clay, sand and vegetable mould yield an ever-enduring, and therefore, an unlimited quantity of earthy salts, like potash, lime, &c.

In the first place, we would state the important fact, that all soil in all situations will *not* yield annual crops of grapes for removal no more than annual crops of wheat to be sent to distant markets, without manure of some kind to replenish the soil. The loss of fertility results often less from the deficiency of bone-earth, potash, soda, magnesia, chlorine and sulphuric acid in the soil stirred by the plow than from the *imperviousness* of the subsoil, which prevents the ascent of water during the hot summer months about the roots of vines and other plants, to supply them with the earthy salts needed for their healthy growth. Subsoil plowing, double spading and trenching, so useful in vine culture, break the under crust, and operate at once to facilitate the ascent of plant food from below upward, and to augment the total capacity of the ground both above and below the roots of plants, to hold all fertilizing gases, whether from the atmosphere or decaying vegetation, and all aqueous and mineral aliment required to bring them to full maturity. Deep and thorough tillage enlarges the store-house of plant food, and gives vastly more pulverized earth in which the myriads of tender rootlets are able to develop themselves for the sustenance of a common parent.

Good culture renders the ground that was before com-

pact and much like a solid rock, as bibulous as growing plants, themselves; so that a soil, recently so hard as to be nearly closed to all air and water, becomes by deep and perfect tillage, capable of drawing from the earth below and the air above, into the very mouths of hungry yet stationary plants, every element demanded by nature to yield the industrious husbandman a satisfactory harvest. Nature loves the earnest and thoughtful cultivator who does his work in a masterly manner—crushing every lump of clay, and pulverizing the ground to bring out all its hidden wealth, as if it were filled with particles of fine gold.

Shallow plowing gives to the soil only a small capacity to hold water in rainy weather; and when this capacity is full and running over, as it has been during the rains of March and February just past, and still additional rains fall, sad indeed is the washing done to many a plowed field. The loose soil was like a bucket full of water which could hold no more. Upon this more rain came in torrents, and started a flood where the ground was a little descending, which carried the light mould loam, and deeper soil as far as loosened by the plow, into the branch or river below. Horizontal plowing, and that of the deepest kind is needed to prevent injuries of this character. In sowing small grains and grass seeds, we have found a roller of much service, not only to compress the earth to the seed and enable it to take a firmer root, but to prevent surface water from collecting in rills, as it is too apt to do, where the plow or harrow was last used in cultivation. Too much pains to avoid the washing of tilled land can hardly be taken in the South. It is better to rest more surface, and do right all that is cultivated at all, than to scratch over a larger area to the serious damage of every half tilled field. Put a fair portion of the plantation down to the best sort of grasses for permanent pastures, and meadows. These will save much labor in pulling todder, will support mules, horses, cattle, sheep, goats and hogs, cheaper than can be done in any other way. Perfect tillage is an art which but few understand. It must be practiced every year, deeply and thoroughly, to bring the soil into the best physical and chemical condition. Sub soiling may injure one or more crops, while in the end it will deepen the rich earth full 100 per cent. A deep, rich soil can never be made in one or two years from a thin and poor one; but time and skill will attain the great object sought.

L.

THE LOW PRICE OF LAND AT THE SOUTH-- Its Cause and Remedy.

It is a humiliating fact that, in no part of Christendom in which there is a settled population and in which there is a good government, does landed estate bear so contemptible a value as in the plantation States of America. The enclosed lands of the State of Georgia, for instance, rate at an average of less than five dollars an acre. The whole area of the State consists of about thirty-seven millions of acres; these are valued at ninety-five millions of dollars. The lands of New York, which is a smaller State than Georgia, are valued at five hundred and fifty millions—nearly six times the value of the greater breadth of Georgia land.

A Pennsylvania paper gives the amount of sales of some fifty farms in Bucks county, in 1858. A considerable portion of them sold for more than \$150 per acre—the larger number for more than \$100 per acre. The same paper (the *Bucks County Intelligencer*) estimates the advance in the price of land in Bucks county alone, at more than four millions of dollars, in 1858.

Throughout the Middle and Northern States, the average price of land is perhaps five or six times as great as the price of land of equal original quality at the South.

In those countries in Europe in a high state of cultiva-

tion, the average price of land is not less than \$500 per acre.

The owner of an average plantation of one thousand acres in Georgia is worth, as to his landed estate, say five thousand dollars. If he could sell his land for as much as the same quantity of land could be sold for in many portions of the Northern States, he would receive for it more than one hundred thousand dollars, and in Europe five hundred thousand dollars.

This is an immense difference. With a given number of acres of land in one position, the owner is comparatively a poor man—in another he is a man of large fortune. This difference occurs not from accidental causes, as proximity to large towns, &c., but in the value of the same quality of land for strictly Agricultural uses.

There must be a cause for this difference. What is it? As we are an agricultural people, and as a very large proportion of our property consists of land, it is obvious that there can be to us no question of greater pecuniary interest, than an inquiry into the cause of the low price of our landed property.

It is remarkable that so little attention has been directed to this point. Elaborate and able inquiries are made into the effect of certain causes upon the price of cotton, or upon the value of our investments in stocks. We do not recollect ever to have met with in reading, or heard in public speaking, an extended enquiry into the cause of the ruinously low price of land at the South. A share in a Bank or Railroad is worth as much in Georgia as in New York. The same is true of a well blooded horse or cow, or sheep or hog. A bale of cotton is worth as much here as there, less the freight. But an acre of land is worth five or six times more there than here. And no one asks, "why?"

We propose to examine this question carefully. We believe that in the partial attention which has been given to it, false causes have been assigned for the result under consideration and, that under the influence of this false causation, the Southern mind has been misled, and its energies perverted, or wasted or wrongly directed.

If it shall be in our power to point out the real cause of the depreciated value of our lands, and suggest a practicable method of bringing them up to the value at which land is held elsewhere, and if the *South Countryman* should have exhausted itself in this effort, and not another of its pages ever be issued from the press, it will not have lived in vain. The inquiry is not new to us. We have pondered it for years. When in foreign lands we have passed through small estates, and on asking their value have received a reply, conveying an almost fabulous amount; when the same result has occurred at the North, but with a diminished, yet great comparative value; in both these positions we have thought of our sunny land, upon which Providence has smiled with an affluence of favors beyond any other land, and have lamented that even the marshes of Holland, the furze covered Downs of England, the precipitous sides of Ben Lomond, the sands of Cape Cod, the rocky pastures of Connecticut, bear a higher value than the soil of Georgia.

In the conduct of this inquiry, we shall in the first instance point out the erroneous causes usually assigned for the low value of landed property at the South.

Prominent among these false causes, is the abundance of cheap and fertile land at the West. This cause must indeed produce a certain degree of effect; but it cannot be the material cause; if it were, the same result would follow at the North. The North-West has been settled chiefly from the Middle and Northern States—Ohio, Indiana, Illinois, and the rest have been thus populated. But land in the older Northern States has not been diminished in value—on the contrary, it has been steadily rising in value. It is easier to reach cheap and rich government lands from the Northern States than it is to reach the

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cheap lands of the South-West from the South—in the former case the emigrant's expenses are sometimes paid, and a Sharp's rifle added added by way of gratuity. The cheap lands of the West cannot be a material cause in producing the low price of land at the South. If it did, it must produce the same effect on the land of the old States at the North. Cheap Western lands have been so generally considered to be the cause of our depreciated landed estate, that inquiry has hardly gone beyond it. The concise reason which has been given will show that this general impression is erroneous.

The Abolitionist will tell us that it is slave labor which depreciates our lands. This is abolitionist nonsense. A single fact will show this. Where slave labor is most abundant, land possesses the greatest value, in all the Southern States. On the rice lands and sea islands, where the negro population is most numerous, land is worth fifty times as much as where there are scarcely any negroes, yet a heavy white population. The Cooper River and Waccamaw lands are worth from \$200 to \$250 per acre, while lands in the interior are not worth \$5 per acre.

So many of us have been educated at the North and in various other ways have been so acted upon by anti-slavery sentiment, that our views, though unconsciously, have been modified by it. Thirty years ago, religious slaveholders were afraid to look the subject of slavery in the face—their consciences were ill at ease in regard to it. Thanks to Abolitionists who compelled us to examine the social, moral and religious relations of the slavery question, our minds are at rest in the belief that we are doing right, and not wrong, in holding slaves.

While this is true in the moral aspect of the question, we are not yet wholly removed from the effects of anti-slavery sentiment as to its economic relations. There is, in the minds of many persons, still, a latent idea that slavery has something, somehow, to do with the low price of our lands—they imagine it would be different if these lands were worked by free white labor. We have an experience of ten years in the use of this labor, and on a large scale. If planters were compelled to use the cheapest white labor that Europe affords in their present system of cultivating cotton and corn, they would soon find it to their interest to make a present of their lands to the first person who would be sufficiently foolish to accept the costly gift.

If slave labor is unproductive, there must be a cause for this unproductiveness.

Is it less constant than free labor? The slave has no Courthouse—no muster to attend. He has no provision to buy, and no anxiety or loss of time on this account—food for himself and family is provided. If his family are sick, he loses no time on this account, as careful nurses are procured for them. Slave labor is the most constant form of labor. The details of cotton and rice culture could not be carried on with one less constant.

Is slave labor less vigorous than free labor? He who thinks so has never fairly made the comparison between the two. In all the forms of out-door bodily and severe labor, to be continued for a length of time, where mere animal force and endurance are concerned, and in a climate suited to him, the well fed negro is more capable than the white man. The exceptions to his being well fed are perhaps fewer than can be found in any other agricultural population.

Is slave labor less cheerful and willing than free labor? Slave labor is indeed compulsory. But what hired labor is not compulsory? Who steadily works for another because he loves to do it? Which is the sterner compulsion for the negro with the negro's nature to see the overseer in the field with his whip in his hand, (a sign rather of authority than an instrument of punishment) or for the

white man with the white man's nature to toil for his landlord and remember that if he relaxes, he will be met with the cry for bread at night from his wife and children, when perhaps there is no bread to give them? We have often stood by and observed large gangs of men, women and children in other countries, come to the roll call, and under a gang master pursue their labor in the field. We have observed in order to compare with things at home. As a result of this comparison, we firmly believe, as a general rule, that there is no form of agricultural labor done by inferior for superior, by the employed for the employer, which is more cheerfully and willingly rendered than the work performed by our negroes for their owners.

Is slave labor less intelligent than free labor? It is less intelligent than free labor at the North, and in Scotland, and some parts of England, but not less intelligent than the mass of Irish, French, or Belgian agricultural labor. The most perfect agriculture of Europe is found in Belgium—there, also, land possesses a very high value, averaging perhaps, \$500 per acre. The mass of the Belgian agricultural peasantry are not more intelligent than the mass of our negroes. A striking illustration of this fact has recently occurred in our own State. A colony of Belgians established themselves in Floyd county. Its leaders were gentlemen of high intelligence and worth. They soon found it to their interest to exchange the stolid Belgian peasants, whom they had brought with them, for the more intelligent negro.

Want of intelligence in our negroes can, therefore, have nothing to do with the low price of our lands, as other lands are of great value where the labor employed is not more intelligent than that of our negroes. It is not so much intelligence in the operative, as in the directing and controlling mind, which is of moment in Agriculture.

Is slave labor less economical than free labor? This question is sufficiently answered by directing attention to the fact, that the increase of negro property is considered to yield an interest of from 5 to 10 per cent. on the capital invested in it, apart from the products sold from the farm. It is certain that multitudes of men have accumulated largely, merely by the increase of their slaves. If we take into the account, their increase, no form of labor, in a suitable climate, is so economical as slave labor.

If slave labor is not less constant, vigorous, cheerful, intelligent and economical than free labor, in countries where land bears a high price, then, in no sense, can the low price of land at the South be chargeable to slavery.

Can the Southern climate be charged with the depreciation of Southern land? Certainly not. Otherwise lands of those portions of the South which are most sickly would not command the highest price. We refer to the Sea Island, Rice, and Sugar Cane lands. It is impossible to find a climate better suited to Agricultural pursuits than that of the great body of the Southern States. Shall we contrast it with the climate of the North, where the winters are almost wholly lost to agriculture? Or with England, where rain and fog are the rule, and sunshine the exception? The climate of France is considered to be the best in Europe for Agricultural pursuits, and it is that climate, in its variations from the Mediterranean to the English channel, with which the climate of the Southern States most closely assimilates. That climate must be eminently favorable to agriculture, which enabled Dr. Parker, of Columbia, S. C., to accomplish his agricultural feat upon "a sand hill flat," viz.:—to raise 200 bushels and 12 quarts of corn from one acre of land, and on an adjoining acre to raise 89 bushels of oats, and afterwards from the same acre, and during the same year, to raise 82 bushels of corn.

In connection with the kind of labor we employ, the mildness of our winters more than compensates for the

excessive heat of our summers, and would leave us on the whole, nothing to gain by an exchange with any other climate whatever. Apart from those portions of the State which are confessedly sickly, yet where land is still highest priced, if we remember the rheumatisms, and colds, and consumptions of the North, and the lake fevers and chills of the North West, we shall be satisfied with the measure of health, with which the Almighty has blessed us, and will conclude that our climate, as a whole, instead of depreciating, should appreciate the value of our lands.

Does the sparseness of our white population diminish the value our lands? This cannot be the case, for in those portions of the South in which the population is most dense, the land is least valuable, and where it is most sparse the lands are most valuable. Our population in Georgia is sufficiently dense, and capital has sufficiently accumulated to give land a higher price, if it were a good investment. It is not so considered, and hence the heavy investments in Railroads, Factories, and the Mechanic Arts.

The money is here, but there is either a deficiency in the land or in the system of managing it, which makes other investments more lucrative than in land even at its ruinously low prices.

Can the low price of our lands be attributed to the want of value in our products? There is no Agricultural product of the North, which cannot be raised and with as large a yield in some parts of the South. This remark is not made hastily, but after careful reflection. The prices of some of these products are higher there than here, and with others the reverse, so as to equalize the whole. We have in addition our most valuable staples, rice and cotton, which are peculiar to the South. It is no deficiency in the value of products, which occasions the low price of land at the South.

If the comparative worthlessness of our landed property, be not owing to the cheap fresh lands at the West, to slavery, to defective climate, to sparseness of population or a deficiency in the value of our products, to what is it owing?

So much space has already been occupied by this article that the answer to this question must be reserved for our next number.—*South Countryman.*

RE-OPENING OF THE SLAVE TRADE.

EDITORS SOUTHERN CULTIVATOR—The fairness and liberality you have exhibited in publishing the views and arguments of your correspondents adverse to your own on the subject of re-opening the Slave Trade, encourage me to hope that you will permit me to express, to your readers some objections which, I think, may be reasonably made to positions taken by you in your article on that subject in the March number of the *Cultivator*, replying to a query propounded by Mr. Miller, in a former number.

That gentleman asked what warrant we had that the "additional labor," proposed by you to be introduced, would be employed in reclaiming our exhausted lands, and not in "cutting down and wearing out more land?"

You reply, in substance, that the re-opening of the slave trade, by cheapening slaves, would place that species of property within the reach of non slave-holders, who are now unable to purchase, by reason of the high prices at which slaves are held; that "the system of farming and farm economy" of such "would be less commercial than that of cotton growers, and, consequently, less injurious to the land;" that "they would naturally keep more stock, make and apply more manure."

This reply, if I have rightly understood you, is hardly satisfactory; for I cannot see what there is in the circumstance of a man's becoming the owner of a "few slaves," which would "naturally" incline him to adopt a system

of farming less commercial than that of cotton growers. There are a number of non-slaveholders around us here—all desirous to own slave property. Every one of them who owns land (with one exception) is engaged in raising cotton. Some have rented land to grow that staple. None of them keep any more stock, in proportion, than the large slaveholders. They do not make and apply as much manure.

Now, what reason have we to suppose that these persons, when they shall have become the owners of a few slaves, will adopt a different system of cultivation? Is there not very strong ground for believing to the contrary? When a non-slaveholder becomes possessed of a negro or two does he usually turn his attention to raising "stock," to making and applying manures? No, sirs! In nine cases out of ten he puts his newly acquired slaves to *raising cotton* to get more money to buy *more slaves*. The "additional labor" is nearly always employed, as Mr. Miller says, in "cutting down and wearing out more land."

Not that I believe this "wear and tear" system to be a necessary concomitant of negro slavery. I believe to the contrary. No other species of labor is so controllable—none more efficient when properly directed—to none, is the saving and application of manures better suited. And when the planters shall turn their attention in earnest to this important branch of agriculture, they will excel in that as they have in many other things.

The truth is, that the system of culture which has been adopted at the South is due in part to the fact that the principal crops are those which require the *labor of the whole year to make and save them*. But the main cause of this "cutting down and wearing out" system is to be found in the circumstance that, up to this time, we have always had an abundance of fertile land, which could be bought at low prices.

And the planters will continue to practice this system until there are no more cheap, fertile lands to "wear out," unless they shall be convinced by the arguments of the *Cultivator* and other agricultural journals, that their true interests require a different mode of culture.

The re-opening of the slave trade, by adding to the "wearing" force, will hasten the coming of the period when planters will be forced to devote a portion of their labor to the improvement of their lands. But that it will in any other way, or at any earlier period bring about a change of system, I do not believe.

You think that the safety of the "institution" depends, in some degree, on the reduction of the present high prices of slaves, thereby placing them within the ability to purchase of the non-slaveholders. You say, "A large majority of Southern voters own no slaves"—"a poor man's vote counts just as much as the vote of a man who is worth a million and holds a thousand slaves"—"the people of the South appear to us as having made up their mind to have one of two things; either all the benefits of free trade in slaves, or all the benefits of free labor without slaves."

Now, Messrs. Editors, I think you are mistaken as to the relative voting strength of the two classes. A fair enumeration will show that slaveholders have a *majority*, I know. I shall be confronted with the *Census Tables*, which make the number of slaveholders a small *minority* of the total white population. But if we recur to the manner in which the census was taken, we shall find reason to believe that, instead of "slave holders" in the census we should read "slave owners" and that a large class of persons, connected, in various ways, with these owners who are slaveholders to all intents and purposes, are counted in the residue of white population along with the other class. Let me illustrate. The white population of a plantation may consist of an owner, his wife, six sons, four daughters, the overseer with a family of five—total, eighteen. The census report for such a plantation would

show but one slaveholder in a total white population of eighteen; whereas the whole should be classed with slaveholders, because all are either directly or indirectly interested in upholding the institution of slavery.

From this it will readily appear that the slaveholding voting strength, as deduced from the Census report, has been greatly underrated. The plantation above cited instead of one, would give two votes, at any rate, for slaveholders, while it may poll as many as eight. The case supposed is, I admit, not a common one. Very few plantation make so large an exhibit of white population. And there are large families all of whose members may be properly classed as non-slaveholders, having no interest in slaves in possession—none in *expectancy*, unless a desire to own such property be considered as such. And this desire, almost universal among non-slaveholders, to acquire slave property, shows that there is no danger of a free soil movement in the South. If such should be made, slaveholders will be found strong enough both in votes and arms to put it down.

You speak of a "monopoly in Southern labor." You say, "to allow them (non-slaveholders) to import slaves as freely as cattle are imported from England, might interfere a little with slaveholding as a close monopoly."

I would respectfully ask, what monopoly? Where does it exist? What persons or class of persons at the South enjoy the exclusive privilege of buying, or selling, or holding slaves? I am not aware of any such. I am under the impression that slaves as well as "mules" and "cattle" may be bought anywhere in the slaveholding States, by any one who has the money to pay for them. If you mean that the price of slaves is so high that only those who can command a considerable amount of money can buy even one, and that therefore it amounts to the same thing as if the wealthy had a monopoly in the buying of slaves; I reply, that if this be a monopoly at all, it is one against which no provision can be made so long as this continues to be a free country. Reducing the price of slaves will certainly not "dispose of it." Were prices brought down to one-third their present range, it would be found that, then as now, those who have the most money would buy the most slaves. Then, as now, poor men would buy very few slaves, while the greater part sold would pass into the possession of the rich. The idea of cheapening a thing that the poor may buy without restricting the rich is a very fallacious one. The general government gave to the State of Arkansas the swamp and overflowed lands within her borders. The wise heads of our Legislature conceived the idea of offering these lands at a price so low that every poor man might buy himself a farm. And what has been the result? Has this magnificent donation passed, by eighths and quarter sections, into the possession of the hard-fisted yeomanry? No indeed! The right of pre-emption alone has secured any of it to poor men in want of homes. The greater part of these lands that have been disposed of, has been bought up by wealthy speculators.

So it will be when the African slave trade cheapens slaves. Those who have the money will, naturally enough I think, do the buying. Those who now own a hundred slaves will desire to possess a "thousand." The price of lands will be enhanced, the staples of commerce over-produced, the wages of labor reduced, the poor man's means of making money will be diminished and thus, though the prices of negroes will be greatly reduced, yet his relative means of purchasing will not be as great as they are now. The state of things which the reopening of the slave trade will tend inevitably to produce, will be anything else but favorable to the acquisition of property by the poor man. Every obstacle that opposes him now, will be increased by the policy proposed. Nothing prevents him from acquiring negro property now but the want of means; this want will be rather increased than diminished, when

his wages as a laborer are decreased, when the little cotton he may raise will bring but five to six cents per pound. Does any one doubt these results? That the reduction of wages certainly follows a large increase of laborers is a proposition too plain for argument.

The over-production and consequent low prices of our staples of commerce will as certainly result. For, what will this "additional labor" do when we shall have imported it? Are not the slaves, brought from the Potomac to the South, placed in the cotton, sugar, rice and tobacco fields? And why will not the slaves from the Congo and the Niger be employed in the same way? If they are thus employed what is there to prevent over-production?

The cotton crop of last year, though the season was an unpropitious one in a large portion of the cotton region, will exceed three and a half millions. The price is now below what it ought to be, considering the cheapness of money from the discoveries of gold. The prices of almost all other commodities have been greatly enhanced by this influx of gold into the circulation. Cotton, however, although the crop is not a full one, shows but little advance over the ruling rates when money was less abundant. We may safely assume, then, that, if a full crop had been made, prices would not have been higher than they were before California and Australia poured their millions into the circulating medium; while the operation of this general cause has nearly doubled the prices of some other commodities. This, I think, indicates clearly that the supply of our great staple is even now increasing more rapidly than the demand. The supply will certainly be augmented by the re-opening of the slave trade and consequent embarkation of a so much larger force into the cotton raising business. And a material reduction of price must inevitably result. The "additional force" will not, therefore, put money into non-slaveholders' pockets. The want of money is the only obstacle that opposes their becoming slaveholders now. This, so far from being removed, will be increased by the introduction of more slaves.

The policy advocated is by no means a poor man's policy.

It is admitted that slaveholders universally make a wide distinction between slaves and mules. The former are everywhere regarded as *human beings* and protected as such. Even masters are punished criminally for the abuse unnecessarily, or the murder of their own slaves; whereas a man may kill or maim his mule with impunity. But although there is this wide difference between the two in public estimation, the "public opinion" of the South universally regards both as the rightful subjects of property. Everywhere in the slaveholding States, the buying and selling of slaves is as proper and right in public estimation as the buying and selling of mules.

It is admitted, also that men have the right to own property in slaves in Africa and everywhere else as well as in these States. But it is not admitted, as you plainly intimate that the slaveholding of the Potomac is the same with that practiced on the banks of the Niger. I earnestly protest against the putting of our system on a level with the horrible system of barbarous Africans. They are, in fact, strikingly unlike. The one is the mild, merciful, almost patriarchal government of a civilized master, restrained by humane laws and an enlightened public opinion; the other is the cruel, brutal rule of a savage chieftain, with no law but his own barbarian will, and with absolute power over the lives of his captives. The trade of one is the legitimate transfer of persons born and raised slaves, with a humane regard for comfort, health and domestic happiness; the trade of the other is the ruthless foray of the strong upon the weak, the bloody destruction of all capable of resistance, the seizure and barter of the hapless survivors to the Coast Trader and their transportation to the slave marts amid the horrors of the "middle passage."

Such are briefly the chief characteristic of the system built up and sustained by the Foreign Slave Trade. The demand for slaves on the African coast, created by this Trade, by exciting the cupidity of the interior chieftains, kindles wars which otherwise would never have been thought of, causes the shedding of blood where else all had been peace, and adds in a tenfold degree to the horrors and hopelessness of savage existence. A *conscientious man* cannot sustain a trade whose direct tendency is to bring about such results.

The slaveholder may, therefore, consistently carry on the Potomac trade while he prohibits, under heavy penalties, that with Africa. The repugnance felt by slaveholders to the Foreign Slave Trade cannot be construed into *tender-footedness* as regards their own slaveholding.

There is no objection to the "fruit" of the "tree" which grows and flourishes in America. The fear is, that by *overcrowding* this "tree" you may so deteriorate and vitiate its fruit as to render it unpalatable. It is not "the increase of an intrinsically bad thing" which is dreaded; it is making of a *good thing evil*, which enters more largely than any other consideration into the opposition to the proposed policy. There are *political* considerations also, which have great influence with the opponents of the measure. But I refrain from any discussion of these as unsuited to the design of your journal.

SIGMA.

Holly Springs, Ark., March 5 1859.

"SOURCES AND QUALITY OF HONEY," AGAIN.

EDITORS SOUTHERN CULTIVATOR—The March number of the *Southern Cultivator* contains a communication relative to this subject, which I desire, briefly, to notice. If only through courtesy to the writer, who, with so much solicitude for "the cause of truth," warns of the danger of advancing theories, unsupported by sound philosophical reasoning, and considerably endeavors to lift from ones' mind the yoke of error.

The indulgence of your valuable pages is asked for with hesitancy, as it is known that the subject of dispute is of little moment in a practical point of view; however, there are, in Mr. LaTaste's "examination," some inaccuracies and omissions that require correction.

He asserts, as a plea for his review, that an article, published some months ago in the *Medical Journal*, was intended as a reply to one from him that appeared in the same periodical. It is hoped that he will excuse the declaration, that such was not the fact, and pardon it, to zeal for "the cause of truth." Indeed it is strange that he should suppose so, since it was distinctly announced in the article, that an offer of it was induced in consequence of the importance which an interesting *editorial* had attached to "the question of poisonous honey," and, too, as it entirely coincides with the *only* point contained in his article, to wit: "whether honey is, within itself, a poisonous substance."

In discussing the sources of honey, he proposed, in order to do full justice, to quote all that was written in reference to it. This he did not do; but, on the contrary, omitted some most important facts and corroborating circumstances which had been adduced in the narrative for the purpose of connectedly sustaining it, and proving that the observations were, as pronounced, matter of fact. Some of these inadvertencies will be noticed in the order that they occur, though doing so must necessarily render this communication desultory in its character.

Mr. LaTaste formally announces that he is an independent thinker, and that he "must have reasoning, facts, indisputable facts, before he can yield acquiescence"—to what, he does not say, and, being left to conjecture, it is presumed that he means anything, which he is not prepared to believe, or which does not readily accommodate itself to the caliber of his comprehension. It is presumed

that he is, also, one who claims no more for himself than he is willing to concede to another, and it would seem, that while disbelieving statements, merely because he did not see what they represent as true, and while his credulity and comprehension demand for their satisfaction "reasoning and indisputable facts," he ought not to essay to teach and convince others by those means which he declares inadequate to his own conviction. But is this so?

He asserts that bees *never* starve if the weather permits of their egress from the hive; but what surely does he offer for the correctness of this assertion? What reason or indisputable fact does he set forth to sustain and prove it? Why, forsooth, *his* personal experience with bees, surrounded by syrups, sugar hogsheads, soda fountains, and confectionaries!—backed by an "*it is said*" argument propounded by himself!!—but it all does not afford "indisputable" proof that the hunter's bees, which, unfortunately had none of the city resources above named, would not have perished in a few weeks longer, had their store of honey continued to decrease from what it was when exhibited with the comb all perfectly prepared; yet, without a drop of new honey, and the old supply nearly exhausted; nor does it explain why there was no new honey in all that empty comb, notwithstanding the entire face of the earth had been covered with flowers for more than two months, as it was then the middle of June.

Passing by Mr. LaTaste's digressive allusion to poetical thoughts and the bird of Paradise, as matters wholly foreign to the subject, I must declare that he is not justified in the assumption that I suppose bees can live upon nothing but honey-dew; for, on the contrary, it is readily conceded that they can derive sustenance from saccharine matters; but, in doing so, it is by no means admitted that they can extract genuine honey from sugar or molasses; and, in all probability, the hunter would not have been afraid of his bees *starving* had they been provided with syrups, a soda fountain and confectionary, though with these resources at hand, he might have remained suspicious about his *honey* crop. But, to return, Mr. LaTaste admits "that bees do gather from honey dew," but denies that they resort to it for their *niture suppli*; then, will he give the indisputable reason why the hunter's swarms had collected no honey up to the middle of June, notwithstanding they were out and upon myriads of flowers all the while? and, moreover, if they do not depend upon the honey-dew for their entire supply, will he offer an explanation of the *fact*, that while, up to the time of its appearance, they had stored not a drop of honey, with a world of flowers round them, after it was discovered, each swarm succeeded in gathering from twenty-five to thirty pounds of pure and beautiful honey in the short space of two or three weeks? Does Mr. LaTaste think such an amount could have been extracted from flowers in the same space of time? He will doubtless attempt to parry these questions, by declaring that he did not see what is described, that it must be an error, perhaps a delusion! at most, an "*it is said*" argument, and in this way, can he always escape; for, in the communication, which he volunteers to review and question, no *theory* was offered; but a simple statement of *facts* was made, the truth of which was tested by the senses, and they were set forth not as hypothesis, but as "matter-of-fact observations," and it would seem that an issue of veracity, is the only ground upon which an attack upon them should be attempted.

Mr. LaTaste says that one can be convinced that bees extract honey from flowers, provided they take the trouble to observe them while at work upon blooms, for the reason that while some will be seen going with their load of pollen, others will be noticed to carry nothing, and that, therefore, "the conclusion is irrefutable," that they are laden with honey; for, he says, it "must be known that

bees gather nothing but honey and pollen;" yet, almost in the same sentence he declares that "pollen does not enter into the composition of wax," if not, then it appears that they do gather something else than the two substances mentioned, since the wax is, most certainly, not formed at the expense of the honey, as the comb is always prepared prior to its collection; then, it is asked, might not those bees appearing to have nothing, be, in fact, laden with materials for forming the comb? This reasoning and the question that it leads to, show clearly that the conclusion that "it must be honey" is not "irresistable," and it would seem furthermore to show that Mr. LaTaste does not always require "indisputable facts" before being convinced. Had he caught these bees of doubtful burden (as was done with those gathering the honey-dew) and killed them and inspected and tasted the contents of their stomachs, then might he afford to talk about "irresistible conclusions."

But, before leaving this part of the subject it is asked, if Mr. LaTaste supposes that when bees, as is often the case, are seen working upon mud, they are extracting honey? for, it is presumed that he will hardly contend that they are gathering pollen; yet, if, while at work, "bees gather nothing but honey and pollen," and if it is not the latter that they are collecting from the mud, the conclusion, according to Mr. LaTaste's reasoning, is irresistible that it must be honey. Moreover, he may not be aware of the fact that bees are attracted by corn cobs saturated in urine, and that such have been used by bee hunters as a means of ascertaining the whereabouts of wild bees; that they will collect upon such materials and work most diligently, and that in going off, no pollen can be described in the cavities of their thighs; therefore, his logic would argue that the conclusion was irresistible that it was honey! No wonder, then, that under the force of such circumstances and conclusions, he should feel assured that "bees never starve, for, verily, if they can extract honey from mud and urine, would it seem, that no such calamity as a famine could ever befall that industrious and wonderfully discerning little insect.

Mr. LaTaste furthermore says, that the honey which bees gather from flowers "is the identical substance sought after by the humming bird and butterfly"—then, must he declare it as his belief, that the saccharine matter of the nectary of flowers is identical with the characteristic properties of honey; for, in his article in the *Medical Journal*, he said, that "he believed that honey existed already formed, and was deposited by the bee just as it was gathered"—if so, then he believes that a clover bloom is filled with honey, in all respects identical with the substance found in the cells of the honey comb, and if this is the case, ought it not to be detected by the sense of taste? But can it? Moreover, if Mr. LaTaste believes that bees deposit honey just as they gather it, and admits that they gather from the honey-dew as well as from flowers, he must believe and admit that the honey-dew and nectary of flowers possess identical properties; in doing which, however, he will admit an absurdity palpable to all who may have tested the two substances by smell, touch, sight and taste.

Towards the conclusion of his "examination," Mr. LaTaste has the following complimentary paragraph:—"While I regret that I cannot agree with Dr. Baker in his theory of the sources of honey, I cannot withhold the expression of the pride I feel in having the aid of one so intelligent as he, in combatting the absurd notion that honey possesses poisonous properties."

It would seem that his criterion of one's intelligence is the fact of their disagreeing or coinciding with his views; be this as it may, he is thanked for the compliment, however inconsiderately paid; for, it would appear that his cause for self congratulation was rather questionable, since the agreement, that gratifies him, was based, ac-

cording to his own showing, upon a groundless theory which promulgated an error injurious to the cause of truth. When one believes that honey is the extract of flowers, they are constrained to admit that it is sometimes poisonous, since it is known that an extract must contain the properties of the material from which it is made. The correctness of this position cannot be controverted by the idea that bees will not extract from poisonous blooms; for, even the most casual observation has noticed them at work upon flowers known to be poisonous—the mock-orange, swamp laurel and yellow jessamine, for example. Well, according to Mr. LaTaste, they must be gathering honey or pollen, either of which is poisonous, and both of which are used as food in the hive; therefore, will it not do to rely upon the sagacity of the bee, unless it is admitted that their products, injurious to man, are harmless to the bee, in which case Dr. Campbell's remark will again come in, explaining how honey may be poison to man and nutriment for the bee.

Mr. LaTaste may finally be convicted, out of his own mouth, of the belief that honey is sometimes poisonous, notwithstanding all his declarations to the contrary, and disgust at the absurdity of the belief. It has previously been shown that he says he believes that "honey does exist already formed, and that it is deposited just as it is gathered," corroborating this belief, it has also been shown that he said that the nectary of flowers, sought after by the humming bird and butterfly, is the identical substance collected by bees as honey; it may now be quoted, where he says that he "admits that the nectar of some blooms is poisonous." Now, then, if the nectar of some blooms is poisonous, and if the nectar of flowers is "identical" with the honey that bees gather and deposit just as they find it, he must certainly admit and believe that there is such a thing as poisonous honey "already formed," whether a bee ever touch it or not.

In reference to the source of honey-dew, but little will be offered. Mr. LaTaste admits its existence and its nature, but objects to the idea of its being precipitated from the atmosphere; still, he adduces the different opinions of so many different observers, that he shows the question to be an unsettled matter, in which the opinion of one intelligent man is as good as another's; besides, it is presumed that he will not object to the demand for an "indisputable fact" to prove that honey-dew is an exudation from the leaves, before acquiescence can be yielded to his belief. It seems, too, that in his researches upon the subject, he has found, at least, one Naturalist who believes, like the hunter, that it is "a species of gluey dew which falls sooner or later." I would remark here, that my mind is not indissolubly wedded to the belief that the honey dew falls from the atmosphere; it is open to conviction upon proof to the contrary. The time of its appearance, as much as anything else, lead to the idea that it was precipitated like common dew. If it be an exudation from the leaves, why does it occur only at night? Acquiescence cannot be yielded to Mr. LaTaste's assertion that no honey-dew would have been found upon the surrounding rocks and trees, since his simple statement affords no "indisputable fact" of its correctness.

In leaving the subject, it may be remarked that the belief that honey is not the product of flowers, but of the honey-dew, and that this last falls from the atmosphere, is by no means, of recent date; nor is it limited to a few. It is the prevailing belief among that class of people who learn what they know from experience and observation, and who study nature, not from books, but as they find it, in God's wide universe.

Before closing, I beg permission to correct Mr. LaTaste in representing me as believing that "old peach" was mixed in the honey that sickened the Grecian soldiers during the retreat of the ten thousand after the death of the younger Cyrus—I expressed no such belief. The

description given by Xenophon, represented the soldiers who ate the honey in small quantities, as having the appearance of being intoxicated, and those who freely used it as lying on the ground, as if after a defeat; and it was playfully remarked that if such an effect should be produced among soldiery of the present day by the use of honey, there would exist in my mind strong suspicion that there was mixed with it an undue portion of "old peach."

Such are the remarks and corrections which Mr. La-Taste's communication has elicited. Hoping that our minds are equally *satiated* with the subject, I remain

Respectfully, P. DEL. B.

March, 1859.

GRASS-CULTURE AT THE SOUTH.

The writer has paid much attention to the subject of Grass-culture at the South, and his observations lead to the conclusion that it presents an inviting field for agricultural enterprise and profit. Calling recently at the residence of Y. L. G. HARRIS, Esq., of Athens, we were shown by him an acre or more of experimental grass-plots in which the Texas Musquite, Kansas Grass, Terrell Grass, Kentucky Blue Grass, and Orchard Grass, presented the greatest luxuriance. If there is any choice among these, as there appeared to be, we should give the indigenous Kansas Grass the preference, as yielding the largest amount of rich herbage per square rod; and the second place in that regard, to the Texas Grass. Judging from appearances alone, (and much observation renders an opinion of this kind worth something) the Terrel Grass will grow on poorer land than either of the other grasses, and at the same time yield less nutritive matter per 100 pounds. Dr. TERRELL and others have proved it to be a very valuable plant for thin light soils; such as will grow rye much better than wheat. Of course, it will do far better on rich than on poor land. Mr. HARRIS cuts all these grasses and feeds them green to his horses and cow in stables; and as they are perennial and durable, a little land properly top-dressed occasionally with manure will keep a good deal of stock in fine condition. Col. BILLUPS of Athens, Dr. REESE, and one or two other gentlemen of our acquaintance in Clark county, are experimenting in a small way in cultivating new varieties or species of grasses. Mr. OSCAR BAILEY, recently from Virginia, where his father is one of the most successful hay and stock growers in the State, has ten acres sown in winter grasses, that promise very satisfactory results. We trust every farmer will try to produce a few thousand pounds, if no more, of green forage for early feeding to all working animals, whether mules, horses, or oxen, and to his cows giving milk and their calves. As small meadows will last a life time, with fair usage, and may be easily extended from seed grown thereon, we know not how to render our readers a better service than to commend this subject to their favorable regards. We have no seed to sell; although last November we purchased seed for some who desired it, while at the North. It would give us great pleasure to see a marked improvement in the live stock of the South; and to this end, the cultivation of grasses, and the cheap production of far more manure, are every way desirable. Farmers, live stock, and live

farmers will all gain much and lose nothing, by diversifying our agricultural industry.

"All flesh is grass," and to grow the latter profitably is the best possible evidence of an excellent cultivator of the soil. Every planter should know, and profit by the fact, that grass is Nature's grand renovator to maintain forever the fruitfulness of the earth. Without it, none of the higher orders of the mammalia, including man, could long subsist on this planet. Hence, the careful study of the indigenous grasses of a continent or large island, in their economical relations, deserves the fostering care of every civilized community. Southern planters and farmers have hitherto paid too little attention to this department of agriculture, and tried more to destroy all natural grasses than to turn them to a valuable account. More money might be made by transforming grass into wool, than common mould into cotton. The one operation augments vegetable matter in the soil; the other consumes and destroys it. Cotton culture alone, instead of improving land, converts it into deserted, and nearly worthless old fields. Wool growing will redeem these, and ultimately render them more productive than they were before a plow first disturbed the virgin soil. Try grass-culture a little, and you will soon desire broad, rich pastures, and green and beautiful meadows.

Both Lucerne and Sainfoin will last thirty years without re-seeding, in the same ground. TULL says: "The reason why St. Foin will make, in poor ground, forty times greater increase than the natural turf, is the prodigious length of its perpendicular tap root." Deep-rooted forage plants are, of all things, most needed at the South to draw potash, bone-earth, and other elements of our great staples, from the deep subsoil to the surface of the ground. Millions of these suction pipes will draw up, day and night, from the bosom of our mother earth, those invaluable substances so indispensable to form cotton seed, and the seeds of corn and wheat. Even the long tap-root of the cotton plant will draw rich manure from the deep subsoil, if one will break the subsoil as it ought to be broken up and loosened. The raw material for making the seeds of all our crops, which form, when rotted, rich manure, is what grass-culture will give us in the cheapest possible manner. It will give us horses, mules, cows, fat cattle and working oxen of the best quality. Our hogs, sheep and goats will then be worth having.

L.

THINGS TO REMEMBER.—If you do not keep your paper, cut this out and put it where you can find it:

A surveyor's chain is 4 poles or 76 feet, divided into 100 links or 792 inches.

A square chain is 16 square poles; and 10 square chains are an acre.

Four rods are an acre, each containing 1,240 square yards, or 34,787 feet, or 24 yards 28 inches on each side.

A pole is 5 1-2 yards each way.

An acre is 4,840 square yards, or 69 yards 1 foot 8 1-2 inches each way; and three acres are 120 yards and a half each way.

A square mile, 1,760 yards each way, is 640 acres; half a mile, or 880 yards each way, is 160 acres; a quarter of a mile or 440 yards each way, is a park or farm of 40 acres; and a furlong, or 220 yards each way, is 10 acres.

GAS LIME AS A FERTILIZER.

EDITORS SOUTHERN CULTIVATOR—Will you please tell me if lime that has been used for obtaining gas, if applied to land will increase its production of corn, cotton, or potatoes—say apply it to common gray pine land. If you think it will pay, please say how it should be applied, and how much per acre?

I must find something that I can use that will increase the natural production of my soil, or I shall be compelled to migrate West. I cannot figure it up so as to make guano or any of the foreign fertilizers profitable at present prices of what we raise for market, viz: corn, wheat and cotton. Any information that you may give me will be most thankfully received.

Most respectfully, WILLIAM ELLIS.

Oglethorpe, Macon Co., Ga., Feb. 19, 1859.

On poor land, gas lime would be a quite uncertain fertilizer; still, if it can be had at a small cost, it is worth a trial. If made into a compost heap with decaying vegetable matter, the chances of its acting as a manure would be increased. If not composted, it should be carefully and evenly spread and then plowed in and well incorporated with the soil before planting, or sowing wheat or other grain. If brought at once into contact with seed, gas lime sometimes contains poison enough to kill the germs of young plants when they begin to grow. Composting, or mixing with the soil, avoids this danger. Apply some 20 bushels per acre, more or less, as abundant or otherwise.

L.

THE "WILD OLIVE," OR "MOCK ORANGE."

EDITORS SOUTHERN CULTIVATOR—The value of this beautiful evergreen is either not generally known or certainly not sufficiently appreciated at the South, particularly upon cotton plantations. It is usually planted and trimmed as a hedge or kept as an ornament for the garden or flower yard, where it fails to discover to its daily admirers its real merit and value, as a fruit tree, particularly to that important animal of plantation demand and consumption, the hog. At this suggestion probably some one might be tempted to laugh, as not being a very important matter after all. But let us see. Since your fields have been thoroughly gleaned of everything by your stock of all kind, and the forest has been diligently searched for every remaining acorn, piggy has been depending for his sustenance upon the extent of your corn crib and your providing agency. Having now nothing to hunt for, he piles up in his dusty bed under your shelters and stables, much to your displeasure and his disadvantage. Turning a deaf ear often to the morning and evening calls to his scanty repast of corn which he knows and feels is not sufficient for his appetite, and rather than be tempted, prefers to remain in his sleep, and when aroused by the feeder, gives forth that peculiar wheezing cough readily recognized and ominous of the fatal event. And if you have not provided winter pastures, this period of the year of which I now speak is the drear dreaded period on our cotton "plantation desolation." It is about this time you hear planters inquire for the price of bacon, and solemnly avow 'tis cheaper to make cotton to buy meat than to attempt to raise it; probably, too, owning three or four times more land than they cultivate. Now, at this important juncture of affairs, fifty or a hundred of these trees in your avenues or lanes would busily employ sows and pigs in picking up the ripe, nutritious berry that has patiently hung upon the tree until February and March to be thrown down by the frolicksome, merry birds and every passing breeze. The berry is ripe now, and will

last your hogs for employment and food, until the mulberry blackens the ground. And other fruits hasten on in rapid succession and the crops of oats, wheat and peas, with Nature's liberal forest supply, fill up the year, and not much corn fed away at last.

But some one will say that the leaves of the wild olive will kill cows. None but famished cows will eat the leaves of this tree enough to kill them. There is no doubt but in the spring the leaves are charged highly with prussic acid, and are excessively poisonous to cattle. But I will state that upon my plantation they grow exposed and can be readily reached, but I have yet to lose a cow from them. The berries, though, will not kill birds nor hogs; but come to them most opportunely, and to the latter are exceedingly nutritious and I have thought, medicinal to the hog in the lousy lethargic condition in which he is found at this season of the year. This tree is found upon our water courses, and in the swamps, but in the crowded condition there found they do not bear much fruit. But planted isolated with room, as any other fruit tree, I have yet to see a crop fail to appear and drop gradually in February, March and April.

BEMAN.

Birdsville, March, 1859.

STANFORD'S WILD OAT GRASS.

EDITORS SOUTHERN CULTIVATOR—When I informed you, some three years since, that this was the greatest grass of the age, it was the truth, and no mistake, nor has any one who purchased seed and given it a fair trial been mistaken. And I now say that I believe it to be the best grass for pasture and for hay in the world. It need not be sown on the same ground but once in five or six years; will produce four tons of hay of the best quality to the acre, and for pasture, it is a beautiful winter green, six to eight inches high all winter.

The only mistake I made about it was, that I threw it open to the public before I had a peck of seed to dispose of, and thereby greatly diminished the fair compensation I ought to have received for its discovery and cultivation.

For the present year I have reduced the price of seed to \$10 per bushel (see advertisement, which will be found on the cover of this paper) and will most cheerfully return the money to any purchaser who will cultivate and sow it as directed, and will afterwards write me, on honor, that he has done so, and that he is not perfectly satisfied that the grass is no humbug—got up for speculation. I say this because I have had five years experience with the grass, and one of your correspondents some years ago pronounced it a "Morus Multicaulis" humbug without having even seen or tried it, and simply so decided because the seed was high priced.

I have received letters from several persons to whom I have heretofore furnished seed and who reside South from Virginia to Texas, and who freely give their opinions of the value of this grass over all others, which opinions are annexed to the advertisement.

Respectfully, JOHN R. STANFORD.

[Our own experience with the grass of Col. STANFORD, was somewhat limited; but altogether favorable. We think it exceeding good for this climate.—Eds.]

LICE ON FOWLS.—Should lice infest your nests, sprinkle in them cut tobacco, and they will slope for parts unknown, instanter. Take my word for it, when I clean my chicken coops I sprinkle in them a strong decoction, and every louse soon disappears to parts unknown. I have cleaned sitting hens of them, where no tobacco had been used, that were covered with the "tarnal critters"—in four hours not one of them was to be seen.

as scarcely to admit of comparison; but we venture to assert that, if due allowance is made for the comparatively greater amount of land under cultivation at the South, and the deteriorating influence of our climate upon arated soils, the planting economy of the South will, this day, exhibit as much foresight, thrift, progression and industry as that of any other section of the country. We are not driven by the shortness of the season into the display of such desperate and go ahead energy as often characterizes our Northern neighbors; but, having "twelve months in the year" to work out of doors, we accomplish as much or more in the end, and do it with greater ease, and less wear and tear of body and mind than they do.—Eds.

SUGAR---NEW PROCESS FOR MAKING.

The *Planters' Banner*, (Franklin, La.,) of March 5, says:

Mr. Francis Lombas, of Lafourche, who paid us a visit yesterday, and well known throughout the entire sugar region as one among the best and most experienced practical sugar-makers in the State—having had over twenty years experience in the business—informs us that Col. Richard A. Stewart, a planter residing in the parish of St. Bernard, below New Orleans, has obtained letters patent from Washington, for a new discovery in the manufacture of sugar on the vacuum pan.

Our informant has thoroughly examined, as well as tested the new process, and hesitates not to pronounce it equal if not superior to his own, or any other plan now in use. The sugar, he says, is made without the use of bi-sulphate of lime, and is of a quality and texture really beautiful, being almost perfectly white, and the grain unusually hard and firm—differing materially from the ordinary sugars now made throughout the State.

Mr. Lombas is firmly convinced, from his knowledge in sugar-making, that this new process of Col. Stewart's cannot but cause an entire revolution in the present manner of manufacturing our great staple; and he hesitates not in recommending it to the favorable notice of sugar-growers, as the best and most practical plan yet discovered. With this assurance on his part, we feel ourselves in duty bound, to communicate the information thus derived to those who may become benefited, through the columns of the *Banner*, trusting that it may prove, on trial, to possess all the merits the discoverer claims for it. Those wishing information on the subject should address Col. Stewart through the post office, at New Orleans.

DURATION OF LIFE.—Mr. Charles M. Willich, of London, has published a simple rule for computing the probable value of property in life at any age from five to sixty. His formula stands thus:— $E = 2 \cdot 3 (80 - a)$; or, in plain words, the expectation of life is equal to two-thirds of the difference between the age of the party and eighty. Thus, say a man is now twenty years old. Between that age and eighty there are sixty years. Two-thirds of sixty are forty; and this is the sum of his expectation of life. If a man be now sixty he will have an expectation of nearly fourteen years more. By the same rule a child of five has a contingent lien on life for fifty years. Every one can apply the rule to his own age. Mr. Willich's hypothesis may be as easily remembered as that by DeMoivre in the last century, which has now become obsolete from the greater accuracy of mortality tables. The results obtained by the new law correspond very closely with those from Dr. Farr's English Life Table, constructed with great care from an immense mass of returns.

F'r the Southern Cultivator. "YE YALLER DOG."

Be peace to his, our honored Shakespeare's, bones,
Whose harp of varied string
Hath drawn such sermons from the senseless stones,
Such good from everything!

Peace to his mōnes! The music of his mind
What centuries shall clog?
That summons me in latter days to find
Thy use, thou Yaller Dog!

Promise is none in all thy form or face
Of ornament or guard;
Not sporting gent would choose thee for the chase,
Nor I, for my front yard!

Not plaided shepherd on his post might sleep
And deem thy watching good,
Unless in dreadful vengeance on ye sheep
Of ye whole neighborhood!

And yet—since length of days (and tail) are thine
And thou art fat and old—
Some heart hath strengthened at thy bark and whine
And held thy hide as gold!

Belike some bi-ped of the abject poor,
Some breechless son of gun,
Who hath, beside ten children "to the fore,"
A dog to every one!

And thou elect! his own especial pet
Of all the yelping score,
In shape of uncouth heraldry art set
Beside his cabin door!

Something to love! with which a man may share
His uttermost of prog,
Soothes the sore bite of hunger with the hair
Of this old Yaller Dog!

All moral else thine outer want of grace
Must evermore deny,
And therefore he, the sponsor of thy race
Hath named thee "Cur," or why?

T.

March, 1889.

OUT DOOR ICE HOUSE.—A correspondent—one of the inventive men of the day—kept ice out of doors, and had a plenty to spare last September. He threw down four foot wood upon a space eight feet square, sufficient to keep ice from the ground. The spaces between the sticks were filled with saw dust or tan bark. The ice was then packed snugly in pyramidal form. To make the mass more compact, in order to keep the air from it, a few pails of water were thrown over it. The mass was then covered with saw dust.

We are inclined to think ice will keep in this way better than any other. The evaporation from the outside carries off the heat, and the mass keeps cooler than it would if shut up in a tight house. There appears to be philosophy in the method.—*Southern Homestead*.

To keep water out, use pitch; to keep it in, use a pitcher.

RIDICULE OFTEN RIDICULOUS.

EDITORS SOUTHERN CULTIVATOR—Ridicule, by those who know nothing whatever on the subject they are discussing, has done more to keep agricultural improvement in the back ground than anything else. Whenever a planter comes to me and says that what I am doing in the field is wrong, and, instead of doing good, will result in harm and only harm, I want him to give me a reason for so thinking; and if he has no reason, only that he thinks so, his opinion is not worth a cent in my estimation.

For instance, if I was subsowing and a planter should pass by and inform me of the important fact that all my labor would be in vain; that the first hard rain would leave no traces of the subsoil plan, only to render the soil and sub-soil more compact, I would, of course, come to the conclusion that he had tried it, and that his opinion was based upon experiment. I have respect for a man's opinions if he reasons on the subject "like a man," and desires to come to correct conclusions by experiment and investigation, though such investigation should uproot every old foggy notion which he and his father before him have ever entertained. But when a man plods away, literally, in the old beaten track of years past, and never tries an experiment, and ridicules those that do, and then presumes to say that everything is wrong, outside of his order of doing things, I do not feel called upon to adopt his system of plantation economy, because I know that he does not know whether he is right or wrong. I do not intend to take for granted everything that is told me about planting, subsowing, composting, stock raising, &c., especially if such information comes from one who has never taken the trouble to step out of the common order of things to inform himself on the subject.

If Dr. Lee, Dr. Cloud, Dr. Philips, Col. Peters, Col. Croom, or any of old veterans in the cause of our country's agricultural salvation, should pass by the field that I were operating in, and say, friend, you are wrong, I would stop and hesitate long before I proceeded farther. And why? Because I know they have studied agriculture, experimented, tested and weighed in the balance almost all the theories now known to Agricultural Philosophy. It would be sensible to listen to them. They know what they are talking about. I would gain information from them that would be valuable.

It has been by corresponding with such men, and reading what they have said in such papers as the good old *Southern Cultivator*, that I have been aroused and informed on the subject of agricultural science. And the thought of learning more and more on farming and planting and corresponding with such men as above referred to, gives me half the pleasure of life. But when a man, for the sake of ridicule, says I am wrong, and gives me no other argument to convince me of the fact than a big foolish laugh, it is not apt to make a very lasting impression upon my mind in his favor.

Yours, &c.,
G. D. HARMON.

Milliken's Bend, La., Feb., 1859.

TROPICAL FRUITS IN LOUISIANA.

A correspondent of the *Homestead* (Hartford, Conn.) writes:

Tropical fruits in Louisiana, at this season of the year, are much more abundant than the fruits of the temperate zone. The only fruit of the North, at all common at the fruit stands and markets, is the Apple, and the specimens of these are not at all comparable to those seen at similar places in our cities. The growing of apples in this vicinity is a recent movement, and they are not produced in sufficient quantity to supply the market through the winter. Those shipped from the North by way of the Gulf stream, rapidly lose their firmness and flavor on the sea,

and are worth little here. The main supplies come from up the river, and these are held at such prices that the consumption is not large. They come in competition, too, with fruits more congenial to the climate, and these are generally preferred by those accustomed to their use.

The Orange stands first among these fruits, and is grown here in greatest abundance. It is found upon nearly all the plantations, where it is cultivated with reference mainly to home consumption. It is found also in many of the yards in the city and suburbs, cultivated both for ornament and its fruit. The tree is of slow growth, but begins to bear in considerable quantities after six or eight years. It never attains a very large size, but trees are frequently found fifteen or twenty feet in height, and bearing four or five bushels of fruit.

There is quite a variety of the *Citrus* tribe of plants cultivated here, the *medica* or lemon tree which bears the lemon of commerce, the *varigata* or variegated lemon tree, the *limonium* or citron, the *vulgagis* or myrtle leaved, the *acida* or lime, the *aurantium* or common orange, the *japonica* or small fruited orange, bearing fruit about one inch in diameter, and thickly set upon the branches, a very beautiful shrub, the *nobilis* or large fruited mandarin orange, and the *otahete* or dwarf fruited orange. Some of these are cultivated more for ornament than for use. The sour orange is hardly to be distinguished in appearance from the sweet. It is nearly as common, and retains its fruit all through the winter, making a very inviting appearance. The rind is very thick and bitter, and the pulp acid. It is only used for preserving. The orange generally found in the New Orleans market is known as the Coast or Creole orange. It is supposed by the nurserymen to be a seedling of the common Havana orange, with what reason I am unable to say. It is certainly very much modified by climate if it has that parentage. The form is a more perfect globe, a little flattened at the stem and blossom ends, and the size about the same. The skin is thinner and finer grained. The quality is far better than the best Havanas I have ever tasted, and this is the common estimate put upon them by those who have eaten both varieties in their greatest perfection. A well ripened Creole orange just picked from the tree is so full of juice, neither too sweet nor too sour, that it leaves nothing to be desired in this kind of fruit. They continue in market four or five months. They are shipped to a considerable extent to the cities and villages up the river, but are never seen in our Northern markets.

Strange as it may seem, they are not yet so generally raised, as to supply the market in this city. Immense qualities of oranges are brought from Havana, West Indies, Central America, and from Sicily. The soil and climate are well adapted to this crop, and it is only in rare cases, that the winter is severe enough to injure the trees. The tree is hardy and long lived, some specimens here being pointed out eighty years old or more.

But the great business of the planters in the region where the orange flourishes, is growing the sugar cane. This is followed so exclusively, that on most of the plantations they do not even attempt to produce the meats and bread-stuffs for home consumption. The cane pays for everything. The unskilled labor employed in this business is not adapted to the nicer manipulations of fruit trees, and the care of their fruits. The crop would be more perishable, and for that reason the returns would be less certain. Few, except those of a small means, make a business of growing oranges for market. A very large part of the trade in this fruit is carried on by boatmen, who call at the plantations, trade with the slaves, and transport the stolen fruit, fowls, and eggs to the city. These brats are always to be found in the season of fruit, at the levee among the steamers, carrying on a brisk trade with the travelling public.

The few who have gone into the growing of this fruit

for market, make it pay very well, and the business presents an inviting field for the investment of capital. Could these Creole oranges be put down in New York, a week after they were picked, as they easily might be, they would sell on the top of they market, and soon crowd out Sicily and Havana. There is no limit to the demand that would soon arise for so desirable a fruit. The demand, however great, could be easily met in this valley. The trees come into bearing much sooner than the apple, and bear with much more uniformity. A pilot, who owns a little place on the river, has an acre planted with 800 orange trees. He sold the crop this season on the trees for one thousand and twenty dollars. As nothing was to be deducted for the expense of marketing, it made a very handsome profit upon an acre of land. A sugar plantation must be remarkable well managed to bring in a gross return of one hundred dollars an acre. A sharp Yankee, with a little skill in fruit growing, and capital, would soon make a fortune in raising this fruit for market.

THE BANANA.

The Banana is, after the orange, the fruit most prized and most abundant in this market. This is the extreme northern limit where the tree will flourish. Its long plume-like leaves are annually touched by the frost, and it stops growing for a time, with its flowers and fruit all upon the stalk. It sends up from the earth several large trunks shooting from a common center, and from the top of each one of these trunks, a fruit stalk puts forth. It has a very large purple flower, which continues for a long time, and the fruit sets on all sides of the stalk, until you have sometimes a hundred bananas or more in a cluster, weighing forty or fifty pounds. The fruit is from four to seven inches in length, and an inch or more in diameter. It is covered with a thin rind which is easily stripped off with the fingers. There are two varieties, the red and yellow, both common in the market. They are cultivated in many of the yards here, and quite as much for ornament as for use. The fruit is brought in extensively from the West India Islands, and, in its season, is quite as abundant and cheap as the orange. There is another variety brought from Ruitan of more delicate form and higher flavor. Bananas in good condition are very palatable, and are eaten with impunity at all times of day, and in any quantity.

The Plantain belongs to the same genus, *Musa*, as the banana, and has the same general appearance and character. It is about the same size, a third or more longer, and the taste is much more acid. This is abundant in the market, and is principally used for cooking. Fried, and sprinkled with a little sugar, it makes a very good substitute for cranberry sauce.

THE FIG.

The Fig flourishes in this climate in the greatest luxuriance. It is as common as the quince or the apple at the North, and when labor is as cheap as it is upon the shores of the Mediterranean, there will be nothing to prevent the packing of this fruit, and supplying the home market with the American grown article. The varieties cultivated are the Brown Brunswick, the Brown Turkey, White Marseilles, Celeste, and Black Ischia. In the rear yard of the house where I write, there is a very large fig tree planted some ten years ago. It has attained the height of some twenty feet, and covers a large area. It is in bearing from July to October, and produces several bushels of figs annually. The habit of the tree is to make a broad, ragged looking head, which is anything but attractive when the foliage falls. The leaf however is beautiful, and would redeem anything from positive ugliness. The fruit, in its fresh state, is rather insipid to those accustomed to the more sprightly fruits of Northern climates. It is highly prized by those accustomed to it, and is nutritious and wholesome in its season.

There is perhaps no fruit so easily propagated, and no tree that will so readily take care of itself as this. It is wonderfully prolific, and the fruit might be produced in any desirable quantity.

VEGETABLES.

The markets here are as well supplied with these, and in as great variety as in our Northern cities. At this season, many articles are much more abundant. Cabbage and lettuce, beets and turnips, celery, and other articles are brought in fresh from the gardens. The sweet potato is in great perfection the year round. The Yam, very little used even in our cities, is a common article here, generally keeping company with the sweet potato. The Irish potato was formerly rather an expensive luxury, and found its way hither, principally by way of the sea. It was thought that it could not be grown here. But now they are raised here early in the season, of good quality, and they are brought in steamers in immense quantities from up the river, and from our Northern seaports, and even from Scotland and Ireland. Nothing is more common at this season than barrels of potatoes at the corner stores, and in the markets. Many of them are already sprouted, showing their long passage in the waters of the gulf. They do not keep well through the summer, and the seed used for planting is invariably brought from a cooler climate. The great increase in the consumption of this article is owing, among other causes, to the large immigration of the Irish population. They come not only directly from the British Isle, in the ships that come hither for cotton and sugar, but from all our Northern seaports that have direct intercourse with New Orleans. This population is so numerous, that they have gained the control of the labor market, and manage things in their own way.

THE PECCAN NUT.

The Peccan Nut, pronounced with the broad sound of *a*, is the most common nut of this region. The tree flourishes best in the rich bottom lands along the rivers. There are two kinds in market known as the Louisiana and the Texas peccans. The nut somewhat resembles the best shellbarks, both in shape and in quality. It is longer, the shell is thinner, and the meat is covered with a very thin astringent skin, which is a drawback to their desirability. The Texas nuts are generally larger, and bear a higher price. They bring from \$10 to \$15 a barrel, and form a considerable article of export from the Texan ports. The tree occupies very much the position of the shellbark with us, receives little attention, and is frequently left near the dwellings, and upon the meadows for shade. When full grown, it forms a magnificent head, and makes a striking feature in the landscape of these alluvial regions.

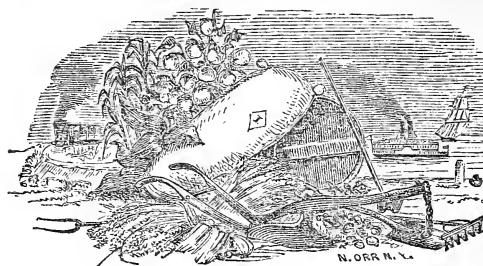
AGRICOLA.

New Orleans, Feb., 10, 1859.

A WARNING!—The *Lawrenceburg (Tenn.) Journal* of the 26th March, says:

"We are pained to learn that on the 22d inst., Joseph Kidd, second son of our worthy fellow-citizen, John Kidd, three miles north-west of Lawrenceburg, met with a terrible accident that ended his life in a fearful manner. He was riding a mule which had on gear, he was thrown off, the chains being fastened to his legs, he was dragged near a mile and a half, and kicked to death and horribly mangled. His body finally became fastened to a log and thus the mule was stopped."

It is observed that the most censorious are generally the least judicious; those who have nothing to recommend themselves, will be finding fault with others. No man envies the merit of another who has enough of his own.



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., NO. 5::::::::::MAY, 1859.

FRIENDS OF THE CULTIVATOR.

THOUGH our subscription list for the present year is in a very flourishing condition, it has not yet reached that point which we anticipated, and which our friends gave us reason to hope for. The *Cultivator*, in its enlarged form, is acknowledged by the press everywhere to be the *best* and *cheapest* paper of its class in the South, and we trust our friends will aid us in giving it a circulation commensurate with its merits. If each of our present subscribers will send us even *one name* in addition to his own, we shall be satisfied. Many of you can send *ten or twenty*, and all *one*. Will not all make an effort to do so? [See terms, &c., on cover.]

ANSWERS TO CORRESPONDENTS.

BERMUDA GRASS.—L. T. E.—Your letter and sample were forwarded to Dr. M. W. Philips, for examination.

GRASS SEED, &c.—J. C. C. A.—You can obtain the grass seed from V. LaTaste, of this city, with directions for sowing.

FOWL LICE.—M. L. B.—See short article in present number.

SOUTHERN ARCHITECTURE.—W. P. G.—See designs in last and present number, copied from "*The House*," a little work on Architecture noticed in our last, page 114. Also, a brief notice in present number of a new style of building originated by Mr. Valk, of New York. If you have plenty of rock, sand and water, and lime is not too dear, you can build an excellent and economical house of concrete. See directions in "*The House*," page 165.

GRASS.—J. R.—Reply to your queries in our next.

CHLOROFORM FOR CHOLIC—HUNGARIAN GRASS SEED, &c.—L S J.—Will our correspondent, "J. A. M.," of Louisiana, whose article we published in our April number, page 127, give us the proper dose of Chloroform for colic in a horse? The seed "L. S. J." requires may be had from Plumb & Leitner, or V. LaTaste, of this city.

VOLUME FOR 1858.—A. M. N.—We can supply this volume, unbound at \$1.

NANKIN COTTON.—Any subscriber, having seed of this

variety, will oblige the Editors by sending a few to this office, per mail.

'BERMUDA.'—W. J. R.—The root you sent us is known here as "joint grass." We do not think it is identical with the Bermuda, (*C. Dactylon*) of Dr. Philips. Elliot says there are two varieties—the sample you send is, probably the native kind—the other, or true Bermuda, (of Dr. Philips and others) is the most valuable for pastures, &c., and both are hard to get rid of.

APPLE, PEAR AND QUINCE STOCKS.—E. S. W.—It is cheaper to buy these stocks from the large Northern and European Nurseries, than to raise them here. Downing's "Fruits" costs \$1.50, and may be ordered from A. O. Moore & Co., 140 Fulton street, New York. We have noticed, heretofore, all the new Southern Apples of merit, and will continue to do so.

GUANO, &c.—D. J.—Apply to your cabbages in a liquid form, if possible. See "Hints for the Month." Cut Chinese Sugar Cane for green food when it tassels. It is one of the very best articles we have for soiling.

ESSEX HOGS.—J. E. McE.—The Hogs you desire are the Black Essex. Address: R. Peters Atlanta, Ga.; or Wm. Summer, Pomaria, S. C.

THE FROST AND THE FRUIT.

WE hear from various sections conflicting statements of the effects of the cold weather of 6th and 7th of April.

At Washington, Athens, Greensboro, Cassville Atlanta, and LaGrange, Ga., the weather was quite cold, on the 6th, and fears were entertained for the safety of the fruit.

In this vicinity, the damage was slight, and so far as we can learn from the latest accounts, fruit, generally, has not been seriously injured. We shall be glad to receive and publish, from month to month, BRIEF statements of the condition of field and garden crops throughout the South.

ONIONS: How to Raise them Profitably, &c. Being the details of experience of seventeen practical Onion Growers, &c. An excellent collection of essays on the subject. Price 12 cents. Address: ORANGE JUDD, 189 Water st., New York.

TO CORRESPONDENTS.—We are reluctantly obliged to defer the publication of articles from W. C.—Ozan—F. B.—J. L. M.—R. G.—J. B. P.—L. W. H.—E. F. E.—E. J.—A Patron and Subscriber—J.—B. F. T.—J. J. B. C—T. G. P.—W. T. C., &c., &c.

OVERSEER OR MANAGER.—Any large Planter, in a perfectly healthy section of Georgia, who desires to secure the services of a very competent Manager or Overseer for next year, will be furnished with the address of such a person, by applying to the editors of this journal, and enclosing a stamp to pay return postage.

"**THE COURANT**" is the title of a new Southern Literary journal, to be issued weekly at Columbia, S. C., commencing in April. This journal starts under very favorable auspices, and will, doubtless, be a creditable exponent of the literary talent of the South. Terms, \$2 per annum, in advance. Address WM. W. WALKER, JR. & CO., Columbia, S. C.

COUNTRY COTTAGES AND VILLAS---AMERICAN Style.

WE have received from LAWRENCE B. VALK, Esq., Architect, 627 Broadway, a very beautiful little tinted engraving of the "new American style of Country Cottages," &c. This is an attempt on the part of Mr. VALK to establish for our own country a style of building which shall combine fitness, economy, beauty and comfort; and though the plan which he has adopted may not suit the tastes and wants of all classes, it will probably be found well adapted to the requirements of the great mass of our people of moderate circumstances. Further information may be obtained by addressing Mr. VALK, as above.

DISTILLER WANTED.—A person who thoroughly understands the distillation of Brandy from the Grape, may hear of a good, permanent situation, by sending his name to the editors of the *Cultivator*.

IRON CLASP FOR BALING COTTON.—We have been shown by Mr. E. L. SNOW, a very ingenious, useful and economical iron strap or band ("SPEER'S Patent") used, instead of rope, for baling cotton. It strikes us very favorably, and we shall, probably, have occasion to refer to it hereafter. For further particulars address E. L. SNOW, Charleston, S. C.

 **FOWLER & WELLS**, of New York, have in press a new work, which they announce as follows:

A REMARKABLE BOOK. HINTS TOWARD PHYSICAL PERFECTION: or, The Philosophy of Human Beauty. Showing how to Acquire and Retain Bodily Symmetry, Health, and Vigor; Secure Long Life; and Avoid the Infirmities and Deformities of Age, &c., &c. In Press—ready May 1st.

Such a work as the above is greatly needed; and we shall have much more to say concerning it, as soon as it appears, if it at all equals our expectations.

"AMERICAN VETERINARY JOURNAL."—We are sorry to learn that this valuable publication is suspended, and particularly regret the cause of said suspension, as set forth in the following circular from Dr. DADD:

BOSTON, March 26, 1859.

Dear Sir:—I take the liberty to inform you that the publication of the *American Veterinary Journal* is suspended with the March issue. The only explanation I have to offer is, that in consequence of remissness on the part of subscribers for the past two years, my pocket-book is now the seat of a very severe attack of dyspepsia, which threatens to confine me and my family to a diet of shorts.

Very respectfully yours, GEO. H. DADD.

GEORGIA STATE FAIR.—The Atlanta *American* says:—"The Fair will be held in the city of Atlanta, in October next, commencing on Monday, 24th, and ending on Friday, the 28th. The arrangements are all complete, and most ample. The list is liberal—the officers able, industrious, zealous and efficient, and the time appropriate. We hope, and shall expect, to witness the most extensive exhibition ever made in Georgia, and to welcome the largest crowd ever assembled at a Fair in the State."

GEORGIA AGRICULTURAL FAIR.

THE next Fair of the Southern Central Agricultural Society, will be held in *Atlanta*, from the 24th to the 28th of October, 1859, and copies of the Premium List may be obtained from the Secretary, Dr. Jas CAMAK, Athens, Ga.

CHATHAM AND EFFINGHAM FAIR.—The Fifth Annual Fair of the Agricultural Club of Chatham and Effingham counties will be held at the Tenbroeck Course, Savannah, on Friday, the 24th of November, 1859.

The List for the present year is now ready, and may be obtained from the Secretary, D. G. PURSE, Savannah, Ga., and all, irrespective of section, are cordially solicited to engage in the competition.

LANDSCAPE GARDENING---STABILITY OF American Homes, &c.

A friend, who has travelled much in various countries, and who is thoroughly familiar with Landscape gardening in Europe, writes us as follows in regard to the new edition of DOWNING and SARGENT's work, which we have noticed elsewhere in present number:

A. O. Moore & Co, our active and tasteful Book Publishers, have just issued a beautiful volume on Landscape Gardening, &c. The first part is a new edition of the work of that great pioneer in refined landscape taste, A. J. Downing, a work which produced quite a revolution in rural matters at the time of its publication. The second part (in one and the same beautiful octavo volume) is the work of H. W. Sargent, Esq. Indeed, no body could be better qualified to bring up Mr. Downing's work to the present state of extended botanical and architectural knowledge than that experienced and tasteful inhabitant of one of the finest residences upon the romantic shores of the great Hudson.

The increasing taste for truly rural beauties and resources gives to that publication an actual merit of usefulness and *apropos*. Americans must be proud of their institutions warranting to the rural resident this confidence and security which are so rarely found in the rural districts of most of the European Continental States. Such publications show the *pulse* of the social body, the relative condition of public life. While impending wars and revolutions disturb every foreseeing mind in the old country, here we can safely talk about rural improvements without hedges, walls or fenses; and devote our time, money and skill to things that we know must be lasting and out of the range of foreign or civil wars at least as far as human foresight can reach.

Thanks to Mr. Sargent and Mr. Moore for this valuable book—which is indispensable to the refined and tasteful lover of rural beauties and improvements.

CRUELTY TO ANIMALS.—The following bill to prevent cruelty to animals has passed the Massachusetts Legislature, and received the approval of the Governor:

"Every person who shall cruelly beat, maim, or torture any animal, shall be punished by imprisonment in the county jail or house of correction not more than one year, or by a fine exceeding one hundred dollars."

THE WEATHER.—More rain—deluges of it almost since our last. It would seem that water enough in the last four months have been wrung out of the clouds for them to be rolled up and hung out to dry. But the rains, floods, mud and storms, it appears, are by no means local to this vicinity. In the West they have been literally water bound in many places all winter.—*Florida Sentinel*, March 29.

 By request of a subscriber, we give the following list of

SOUTHERN AGRICULTURAL PAPERS.

"*American Farmer*," Baltimore, Md. Monthly. N. B. WORTHINGTON & Co., Editors and Proprietors. \$1 per year.

"*Southern Planter*," Richmond, Va. Monthly. J. E. WILLIAMS, Editor. AUGUST & WILLIAMS, Proprietors. \$2 per year, in advance.

"*Farmer & Planter*," Columbia, S. C. Monthly. WM. SUMMER, Horticultural Editor. R. M. STOKES, Publisher. \$1 per year.

"*Southern Cultivator*," Augusta, Ga. Monthly. Dr. D. LEE and D. REDMOND, Editors. WM. S. JONES, Publisher. \$1 per year.

"*The South Countryman*," Marietta, Ga. Monthly. C. W. HOWARD, Editor. W. H. HUNT, Publisher. \$1 per year.

"*American Cotton Planter and Soil of the South*," Montgomery, Ala. Monthly. Dr. N. B. CLOUD, Editor. ROBT. NELSON, Horticultural Editor. N. B. CLOUD, Publisher. \$1 per year.

"*Southern Homestead*, Nashville, Tenn. Weekly. L. P. WILLIAMS & Co., Editors and Proprietors. \$2 per year.

"*Planter & Mechanic*," Jackson, Miss. Monthly. JNO. J. WILLIAMS, Editor and Proprietor. \$1 per year.

"*Southern Rural Gentleman*," Grenada, Miss. Weekly. J. L. DAVIS, Editor and Proprietor. \$2.50 per year.

"*Valley Farmer*," Louisville, Ky. Monthly. N. G. COLMAN and H. P. BYRAM Editors. A. GUNTER, Publisher. \$1 per year.

It is possible that we may not have enumerated in the above list all the Agricultural journals of the South; but we believe there are few, if any, omissions. We will take pleasure in announcing the titles, terms, &c., of any others that may be added to our list of exchanges.

BEECH ISLAND (S. C.) FARMER'S CLUB.

We had the pleasure of attending the April meeting of this Association, and were, as usual, much interested in the proceedings. The question for discussion was upon the comparative economy of *soiling* or *pasturing* cattle and other domestic animals—and incidentally the making and application of manure, &c., &c. It seemed to be the general sentiment of the members, that *soiling* was, in most cases, far more profitable than *pasturing*, and that well-saved and properly-applied stable or barn-yard manure is cheaper and better than any of the commercial fertilizers of the day. Much valuable information was elicited during the progress of the discussion, and many suggestive remarks thrown out; and the good influence of the Club is becoming every day more and more apparent. Since its formation, a new spirit of inquiry and enterprise has sprung up and spread itself over a large district of country; and the desire for progress and improvement is perceptibly increasing.

We have long regarded the Beech Island Club as a model organization of its kind, and upon revisiting it after an absence of some months, we were rejoiced to find no abatement of the zeal or spirit which has ever characterized its members. May it live and flourish, until there is not a gullied hill-side, barren old-field or undrained

swamp within a hundred miles of the Club House; and may Planters and Farmers everywhere throughout the South speedily form and sustain hosts of similar associations.

CONDENSED CORRESPONDENCE.

THE GRAPE IN FLORIDA.—A gentleman of Gainesville, Fla., writes:

"I am about to try the open cultivation of the choice Foreign varieties, and should be pleased, at any time to reciprocate favors in the way of exchange of kinds. I shall use mostly scions, grafting them into the native stocks."

"I have discovered a new native variety, which, if it prove valuable, I shall report to you.

Very respectfully, O."

TEXAS ANTS.—A subscriber in Uvalde County, Texas, says:

"I am trying to make a Peach orchard in stiff land, and am pestered with a small black ant, which works, I think, mostly upon the roots or tree under the ground, retarding the progress of some and causing others to die. Can you refer me to any treatise that will instruct me how to get rid of them?"

[We cannot; and must appeal to our readers, who may have had experience with these insects.—Eds.]

WILD GRAPES IN TEXAS.—A gentleman, of Victoria, Texas, in remitting his subscription, says:

"Please find enclosed \$1, for which send me the *Cultivator* one year. I am so well pleased with your paper that I would not do without it for \$10 a year."

"Please give us the best mode of grafting Grape Vines. This part of Texas exceeds any other, I think, in producing the 'Mustang Grape.' I have seen some trees in the woods that were covered with vines literally black with grapes. I got from one vine grapes enough to make fifteen gallons of wine. I wish to propagate many varieties of the grape by grafting in our native vines; for I think Texas will be a grape growing State."

Yours respectfully, B. S.

[For the method of grafting the grape, see March number, of present year, page 80. We shall be glad to receive cuttings of your best wild varieties, next fall.—Eds.]

PRAIRIE PEA—GRAPES, &c.—An esteemed correspondent, at Pine Bluff, Ark., encloses a few singular looking Peas, with the following remarks:

"Enclosed please find the 'Wild Pea of Arkansas.' These peas grow wild upon the prairies, and sometimes cover acres in extent with a thick mat of vines. Horses and cattle are so fond of the vines and peas that they frequently run off to a distance (often miles) to get to where they grow. All kinds of stock fatten very fast when feeding upon these pea vines. I am not aware that they have ever been cultivated. I send a few to you for that purpose."

"Nearly two years ago I wrote to you, describing four varieties of Grapes, growing wild in this neighborhood. I have since that time seen the Arkansas grape growing side by side with the Catawba and Isabella, and consider the Arkansas Grape larger, better adapted to the climate, and superior in flavor to either of the others."

AFRICAN SLAVE TRADE.—"I thank Dr. Lee for answering my questions on re-opening the African Slave Trade. My queries were not propounded in a spirit of contention or to advocate my own opinions, but to elicit discussion, and to gain information. I was not wedded to my own

opinion, but was open to conviction, and I think that Dr. Lee's free-trade argument is unanswerable.

Yours respectfully, THOS. P. MILLER.
New Prospect, Miss., March, 1859.

MEASURING CORN.—In your March number, page 81, is some information wanted in respect to measuring corn. Mr. "W. C. K." has but to think what a barrel of corn is—it is not one bushel, but it is five, as he will see in rule third in January number, page 10. In a room 20 feet long, 15 feet wide and 9 feet deep three is 730 bushels, or 146 barrels.

N. B.—This is unshucked corn.

Respectfully yours, O. D. NIGHT.
Pike County, Miss., 1859.

GIN GEARING.—Our correspondent, "T.", says, truly: "A good workman is all the rule I know for building anything. No modification in the size of parts in the gear is necessary, but the "king-shaft" must have no room to rock; and every part of the machinery must be as level, plumb and round as carpentry can make it."

SCRATCHES IN HORSES—A REMEDY.—Some time last winter three of my horses were taken with the scratches. Two of them were cured very soon with blue stone and lard. The third one got worse. I then tried white paint or white lead, but to no effect. I tried one or two other remedies, but with no better success. I then tried coperas and urine, boiled together. I use this as a wash; and after washing and while the affected parts are wet I would sprinkle on the parts charcoal dust, made from burnt leather. Three or four applications of this will cure the worst kind of scratches.

P. R. L.

"PIP" OR DISTEMPER IN FOWLS.—Can you inform me through the columns of the *Cultivator*, of a remedy for the "Pip" in Chickens, so called by some of my neighbors. Their eyes first become sore, and close entirely up, and in the course of a day or two their throats become sore and seem to be closed up; they linger for a day or two and die. Out of about fifty grown chickens I have lost fully one-third. If you or any of your numerous readers can give any hints or remedy for this disease it will greatly oblige,

Respectfully yours,
Darlington, S. C., March, 1859.

M. R. S.

OUR BOOK TABLE.

LANDSCAPE GARDENING. "A Treatise on the Theory and Practice of *Landscape Gardening*, adapted to North America; with a view to the Improvement of *Country Residences*. Comprising historical notices and general principles of the Art; directions for laying out Grounds and arranging Plantations; the description and cultivation of hardy Trees; decorative accompaniments of the House and Grounds; the formation of pieces of Artificial Water, Flower Gardens, etc. With Remarks on Rural Architecture. By the late A. J. DOWNING, Esq. Sixth edition. Enlarged, revised and newly illustrated. With a Supplement, containing some remarks about Country Places, and the best methods of making them; also, an account of the newer Deciduous and Evergreen Plants, lately introduced into cultivation, both hardy and half-hardy. By HENRY WINTHROP SARGENT. New York: A. O. MOORE & Co., Agricultural Book Publishers, 140 Fulton St. 1859."

The progress of Landscape Gardening, since the lamented death of Mr. DOWNING, made a new edition of this most valuable treatise altogether a necessity, and we rejoice that the work has fallen into such competent hands. In allusion to the new editor, the *Home Journal* says:—"Intimate with Mr. DOWNING, while living, and possessing this habitual sympathy of pursuit, Mr. SARGENT was

better qualified than any other friend to undertake the careful editing of a new edition; and this he most promptly and generously undertook and has most admirably accomplished."

Most people of cultivated taste in rural matters, are, of course, familiar with the earlier editions of this work; but, for the benefit of such as are not, we append a list of the subjects treated upon, both in the original edition and the one before us:

Section I.—Historical Sketches. *Sec. II.*—Beauties of Landscape Gardening. *Sec. III.*—Wood and Plantations.

Sec. IV.—Deciduous Ornamental Trees. *Sec. V.*—Evergreen Ornamental Trees. *Sec. VI.*—Vines and Climbing Plants. *Sec. VII.*—Treatment of Ground—Formation of Walks. *Sec. VIII.*—Treatment of Water. *Sec. IX.*—Landscape or Rural Architecture. *Sec. X.*—Embellishments; Architectural, Rustic, and Floral. Appendix.

SUPPLEMENT OF MR SARGENT.—*Section I.*—Progress of Landscape Gardening since Mr. Downing's death; Formation of new places; Common Errors; the Lawn. *Sec. II.*—How to make a Country Place; Commencing without trees; commencing in a wood; history of Wodenethe; history of Wellesley; Italian scenery. *Sec. III.*—The newer Deciduous Ornamental Trees and Shrubs. *Sec. IV.*—The newer half-hardy Evergreen Trees and Shrubs; acclimatizing and employing them; tabular view of Hardihood in different parts of the United States. *Sec. V.*—Historical notices; examples of Landscape Gardening and Rural Architecture in the United States. *Sec. IV.*—Historical notices continued; Rural Cemeteries; Central Park, New York; Llewellyn Park, New Jersey; Clinton Park, etc.

The new matter added is very valuable, and the illustrations exceedingly beautiful. Many of the latter are from the pencil of the publisher, (Mr. MOORE) and reflect much credit upon his taste and skill. We fully agree with Mr. WILLIS, that "nothing could be more timely than the issue of this volume at the present moment. With the rallying of our country's prosperity, the buyers and beginners of rural residences are greatly multiplied, and the wealthy town winterers are returning to their summer villas; and, to all these, the latest new book on the subject of "Landscape Gardening" is very necessary. Beyond its value as an accumulation of the required wisdom, however, it is a most ornamental addition to a drawing-room table, from its beautiful typography and splendid illustrations; and, in fact, we can recommend no purchase, to the proposed dweller in the country—none which so combines the valuable and tasteful—as this SARGENT EDITION OF DOWNING." Price, \$3.50. Address A. O. MOORE & Co., 140 Fulton, St. New York.

AMERICAN WEEDS AND USEFUL PLANTS: Being a Second and Illustrated Edition of *Agricultural Botany*: an enumeration and description of Useful Plants and Weeds, which merit the notice, or require the attention of the American agriculturist. By WILLIAM DARLINGTON, M. D. Revised, with additions, by GEO. THURBER, Prof. of Mat. Med. and Botany, etc., in the New York College of Pharmacy. New York: A. O. MOORE & Co. 140 Fulton St. 1859.

We have rarely had occasion to notice the appearance of

a more interesting or useful volume than the one whose title we have just given. It is a book which country residents have long needed, and which will prove most acceptable to all who desire an insight into the most common objects by which we are surrounded. How often, in rambling through the fields or woods, is the eye arrested by some noticeable plant or weed, which, like the "yellow primrose" of PETER BELL, is to us

— a plant or weed,

And it is nothing more;

and how much greater would be our enjoyment of such things, if we understand their names, properties and uses? To teach us this, and to render Botany not a formidable "science," but a "household word" to farmers, is the object of this work. The author in his Preface, very truly remarks that "If our American youths, who are being educated with a view to Agricultural pursuits, were required to make themselves botanically acquainted with that portion of the vegetable kingdom which annually demands their attention on the farm, the Profession [of Agriculture] would soon assume a new and engaging aspect. The labors of the field would be blended with the contemplation of facts and phenomena of deepest interest to inquiring minds—and agriculture, instead of being shunned as an irksome drudgery, would be justly esteemed as one of the noblest employments of a free and intellectual people."

We heartily commend "Agricultural Botany" to our readers Price, \$1.50, per mail, post paid. Address A. O. MOORE & Co., as above.

THE WESTERN FRUIT Book; or, American Fruit-Grower's Guide for the Orchard and Fruit Garden, &c., &c. By F. R. ELLIOTT. Fourth edition—revised, enlarged and improved. New York: A. O. MOORE & Co, 140 Fulton St. 1859.

This is a new and greatly improved edition of a work which we have heretofore favorably noticed. It contains the names and descriptions of many new varieties of fruit, and is in some respects well suited to our climate. The author says: "Having given more attention to Southern Fruits and their seasons, than formerly, and finding many succeed well South, that have been superseded North and East, I have introduced them throughout the work; hence, I think it will be found as well adapted to that as to other portions of the United States."

A really good work on *Southern Pomology* is yet to be published, but while we are waiting for such an one, we must welcome all that promise to be of value, and we have no hesitation in placing Mr ELLIOTT's work on this list. Price, \$1.25, per mail, post paid. Address, as above.

AN HISTORICAL SKETCH OF SLAVERY FROM THE EARLIEST PERIODS. By THOMAS R. R. COBB, of Georgia. Philadelphia: T. & J. W. JOHNSON & Co.

One rarely meets with a volume of 300 pages on any historical subject so full of interest, both in reference to its matter and manner, as this "Sketch of Slavery from the Earliest Periods." It is most remarkable for the extensive reading and research displayed by the author, and for the careful citation of numerous authorities from beginning

to end. It supplies a reliable work from which all may derive much useful information; and it will rank as a standard authority in this department of historical knowledge. Every one who seeks to be well informed on the important principles involved in negro slavery, and the practice of slavery in general from the remotest times, should place this elaborate summary within his reach, for reference. It is a masterly production, which cannot fail to add to the fame of its distinguished author, and strength to the convictions of the Southern mind in favor of a strangely misunderstood institution. The work ought to have the widest possible circulation for its solid merits.

For sale by WM. N. WHITE, Bookseller, Athens, Ga. Price, \$1.50; by mail, \$1.75. L.

RUSSELL'S MAGAZINE for April commences the fifth volume and third year. The Proprietors express their thanks for the encouragement they have received, and while so inciting its continuance, remind subscribers that the terms of subscription must be strictly adhered to and payments for the coming year be promptly made. This magazine deserves the support of Southern readers, and should be liberally sustained. Terms, \$3 per annum, in advance. Address "RUSSELL'S MAGAZINE," Charleston, S. C.

CHARACTER.—Were I to make trial of any person's qualifications for a union of much delicacy, there is no part of his conduct I would sooner single out than to observe him in his resentments. And this not upon the maxim frequently advanced, "that the best friends make the bitterest enemies;" but on the contrary, because I am persuaded that he who is capable of being a bitter enemy can never possess the necessary virtues which constitute a true friend.—FRIZSBORNE.

Other passions have objects to flatter them and seemingly to content and satisfy them for awhile: there is power in ambition, and pleasure in luxury, and pelf in covetousness; but envy can give nothing but vexation.

Botanical Department.

PRUNING FRUIT TREES.

EDITORS SOUTHERN CULTIVATOR—Pruning fruit trees is somewhat of a periodical disease, which manifests itself about this time of year. The Southern planter and farmer now gives his orchard a passing glance and notices his trees to be sadly out of order, as well as unproductive, and hence concludes they need pruning—a panacea for all their diseases. He seizes upon the first axe he can find, no matter whether dull or sharp, and falls to upon his refractory, sickly, and unproductive subjects; he cuts and slashes right and left, no matter to him how or what he cuts, provided the limbs come down with a crash. After going over his orchard in this way, he stops and take a general survey of its improved appearance to his eye and ideas (if one ever entered his head). He sees his trees towering aloft like the sky-scraper of a man-of-war, and huge piles of limbs lying on the ground beneath, and with evident self-satisfaction fancies himself somewhat of a hurricane. He probably never thought, while at work, what he was doing, whether acting rationally or as a lunatic; but were he to haul up to a block his horses, mules and cattle, and chop all their tails off close to their

rumps and when remonstrated with, say, he was pruning them; we are of opinion a commission of lunacy would soon be sued out against him; yet there would be about the same amount of good sense in one case as the other.

On the one hand he would soon be without fruit and trees, for the scorching summer sun soon burns them to death; while the flies and other insects would soon reduce his horses and cattle to skin and bones, and finally to death.

We recently made a short trip through a portion of Middle Georgia, and saw numerous orchards of apple and peach trees, but amongst all, we never saw one tree properly trained or trimmed—all were trimmed up high, and from one-third to one-half of all the trees we saw, were dead on the southwest sides of their trunks, yet we never found one man who could tell the cause, and probably had never even thought of it.

The scalding of the trunks of fruit trees on their southwestern sides, by the rays of the sun falling on them during the long days of summer, kills and injures more of them than all other causes and diseases put together, and the owner alone is to blame for it, through his pruning operations.

Remonstrate with him—tell him his trees should have low heads, and rarely need any trimming—he will meet you with the question: How am I to plow under them and cultivate the ground? You have no business at all to plow under them, and expect a crop of something else; plow up to them until the limbs begin to interfere with you, and you are as near as you should go. The roots of a tree extend about as far as the limbs, and, as they take nourishment mostly from their ends, you have plowed and stirred the earth to precisely the right point when you come to the limbs; nearer to the trunk than this is an injury, for you necessarily mangle and injure the roots.

With young and newly planted trees which have but small or no tops, it is necessary to shade artificially, by placing a clapboard beside them, securing it with a tie of some sort, or any other means which may suggest itself.

As soon as the tops are sufficiently grown to protect the trunks with their shade, which is the second or third year, all other means may be dispensed with. Some will say, I cannot make my trees branch out low down. To such we say, top them, and, our word for it, you will not have it to say again. The naked trunk of an apple tree should be about three feet high; that of a peach tree from one and a half to two feet high to the limbs, which latter should be shortened about one-half their growth annually which will keep a new growth of fruit-bearing wood in the interior of the tree, instead of being alone at the ends of the limbs.

It is with raising fruit as with every other crop, if attended to and cultivated as is cotton or corn, our labor will be rewarded; but we have no more right to expect a crop of fruit from an old, worn out, uncultivated sedge field, than we would a crop of corn on the same land without plowing or hoeing. "By the sweat of thy brow shalt thou eat thy daily bread," is the fiat of Almighty God, and he who thinks he can escape it will soon find his mistake.

J. VAN BUREN.

Clarksville, Habersham Co., Ga., Feb., 1859.

GRAPE CULTURE---PRUNING, TRAINING, &c.

FROM the proceedings of a late meeting of the New York Farmer's Club, we extract the following: —

GRAPE CULTURE—This was one of the questions of the day, and was called up in preference to any other for the purpose of getting Dr. Grant of Iona, an island in the Hudson, near Peekskill, to give the Club his views. The Doctor has devoted a great deal of attention to grape culture, and has read all that has been published, and his remarks were listened to with an attention that showed how

deep an interest is taken in this question. We can only give a few brief notes of what he said, all of which he illustrated with well-executed drawings, and with real vines. His discourse was one abounding with practical information. Several grape growers present gathered near to catch every word, often putting questions that elicited valuable information.

PRUNING—Cut off the first year's growth above two buds, and next year cut back so as leave two buds of that year's growth. In nature a vine grows both branch and roots to a great length, before bearing fruit, as it can bear no fruit until its leaves and branches reach the air and sun at the top of the tree. In cultivation we must train vines to new habits. We cannot depend upon any but native varieties. A well grown vine will reach 5 or 6 feet the first year, and 10 or 12 feet the second year, and its success as a bearer will mainly depend upon the manner of trimming and training it the first years. No untrimmed vine can remain healthy and be productive. Fruit buds grow upon the same branches but once. Ten feet square of ground is required for a root, and six or seven times that for the vine. Mildew is the great enemy to contend with, and the vine must have air and vigorous growth, for that tends to prevent mildew, and it must have room so as to expose every leaf to the sun. On the third year two bunches to a cane, or branch, is all one can grow to perfection; all others must be plucked off. The leaves naturally develop themselves to the sun, and no more leaves must be left than will fill the space. No healthy leaf grows in the shade. Vines suffered to bear too full the third year are ruined ever after.

The fourth year, train up four upright canes, and these will each produce three bunches, and the horizontal shoots will produce 24 bunches and bud out new shoots. Only three bunches to a shoot should be grown, and a bunch never should be exposed to the noon-day sun. Training vines upon the trellis is best for the vineyard. The arbor gives shade, and may give satisfaction; but the trellis gives the most fruit. Four feet length of elevation of canes is as much as will produce perfect fruit.

At the end of the seventh year the vine is fully established, with three branches on each shoot, which will give six bunches, three on each arm between each upright. At the base of each shoot is a bud for the fruit-bearing shoot next year. The ends of the fruit bearing branches must be stopped at about two feet from the base. It will shoot again, and must be stopped again, leaving one leaf. The best thing to tie the vines to the trellis-wires is basket willow. Bull-rushes are also good. Hatters trimmings are also recommended.

If all the buds are permitted to grow, the vine will soon be ruined. The best branches always grow nearest the stalk. November is the best time to shorten back a vine to the buds that are to be left for bearing. It is an object with the young vine to cut back or stop the growth of branches, to give strength to the root. Pinching the bud of a growing vine is to give vigor to the root, as well as the buds that are to furnish the canes for fruit next year.

The Doctor exhibited vines one year old six feet long, and two years old twelve feet long, grown from two-eyed cutting of the Diana Grape, which is considered a slow grower. Long cuttings should never be planted. Two or three eyes are better; two eyes are best. A serpentine form given to a young vine makes it grow stronger. The best plan to get new vines is by layers. It makes vines that will bear earlier. I have seen five bunches upon a Delaware cane of one year grow perfect. But three bunches to a cane generally is as much as can be depended upon. A vine must not be made to overbear, or over-produce wood. Sparing the knife spoils the vine. I think, in this country, that the trellis form of growing vines both for wine and market fruit, will be the best plan—better than growing upon stakes. On posts seven or

eight feet high place five wires, and set the rows ten feet apart, and running north and south if convenient. Grapes can be grown to advantage in the city. A vigorous vine can be carried up six or eight feet a year, without bearing until it reaches the top of the house, and there trained upon a trellis, and produce good fruit many years. Vines can also be trained upon brick walls, or in yards that have four hours of sun a day. It is not necessary that the sun shine on the ground where a vine is rooted, so that it reaches up to a sunny spot for leaves and fruit. I have trained vines up a house side three stories high.

All sides of a house may be used, but on the north side the fruit will not ripen well. A northeast exposure on the sea coast is not a good one for grapes. One objection to an eastern exposure is bright suns after frosts. Summer pruning is indispensable. In the angle between the leaves two buds start, and if one is not plucked out it will produce a shoot that will bear green grapes in the Fall. Care must be taken not to cut off the vines in the hard wood in the summer. The shoot must be stopped in the bud, by pinching, and not by cutting away hard wood. Vines never should be trimmed with ordinary shears, but by a very keen knife, with a smooth cut.

The bunch next to the main stem covers the bud of the fruit-bearing branch for next year. In pruning in the fall all of the fruit-bearing arm is cut away to one bud. It is better to prune in November than later, on account of the exuding of the sap, which is considerable if pruning is done in March, which damages the vine more the second year than the present year. There are many advantages in pruning in November, but if neglected then, it must not be neglected altogether, for upon that, and also plucking of all excess of fruit, depends the success of grape-growing.

THE DELAWARE GRAPE.—The Doctor exhibited a painting representing a Delaware vine in bearing, which was much admired, as he gave full explanations of the manner of treating the vine, to produce the growth and bearing it represented.

SOLON ROBINSON.—Upon this subject I will read a portion of a letter from a Rochester grape-grower, and indorse all it says of this best of all American grapes. The writer says:

"We have been engaged in the cultivation of the grape for more than twenty years, and we can fully indorse your remarks, by asserting that the Delaware is the best grape that we have ever seen for out-door culture in this latitude, because it possesses the following qualities:

"1st Great Hardiness—It has been known to stand uninjured where Isabella, Clinton and Catawba have been killed to the ground.

"2d Productiveness—It is a great bearer. The berries and bunches increase in size as the well cultivated vine grows older, and it probably will produce more pounds of fruit to the acre than any other sort that we know of.

"3d Earliness—It is said to ripen in Delaware, Ohio, about the middle of August, and in Western New York early in September. There is no other native grape, nearly as good, ripens so early, that we know of.

"4th. Quality is Best—Whenever and wherever compared with other varieties, Delaware bears off the palm.

"Now, my dear sir, these grapes are so scarce for two reasons:

"1st. The above-mentioned excellent qualities cause them to be in great demand, and prices rise in proportion.

"2d. Those who have the genuine stock, find it is extremely difficult to multiply as fast as the vines could be sold at large prices."

NATIVE WINES—Mr. Rockwell, of Ridgefield, Conn., exhibited a large number of samples of Connecticut-made

wine, which were tested and several of them approved. To our notion, the fault of his manufacture is that he uses too much sugar.

PEACH BORER--STRAWBERRIES--HYBRIDIZING, &c.

A very zealous and successful amateur of Charleston, S. C., "gives in his experience," as follows:

"Out of 12 finest varieties of Peach trees I planted two years (or more) ago, the borers mercilessly spared—none! Dejected, but not disheartened, I procured a few of the "Amelia" and about the roots of five of them I placed pieces of the wood, and one dozen of the berries, (crushed) of the "Pride of India" or "China Berry" tree. The sixth and remaining tree, despite copious applications of boiling water, died. Verdict, after a *post mortem* examination, "Ravages of the Borer." The five are now freighted with what (the dangers of a late frost excepted) will be fine fruit! Is it necessary to speculate upon these facts? Will any one be so incredulous as to say that *one* out of *six* trees planted 10 feet apart is enough to satisfy the rapacity of the borers? *Perhaps* the race which inhabited that particular locality, like Eve of old, desired the "tree in the *midst* of the garden!" and, in order to belie my belief, and disappoint my expectations, refrained from disturbing *five* out of the *six*. *Very probable.*

In the cultivation of Strawberries, I have tried six different methods of manuring. That which produced the earliest and most luxuriant growth, largest and sweetest berry (for you must know I believe strongly in flavor produced by manure) was the barrel-made, vegetable manure, as follows:—I procured six whiskey barrels, and in these, to every bushel of vegetable matter, I put one pint of lime and ashes, until the barrel was within three inches of being filled. I then poured in boiling soapsuds, urine, and some night soil. I then headed up the barrels and rolled them aside (this was in August) until December, when I watered around each plant with the liquid, and forked in the solid matter. During our coldest nights in December and January, I did not cover the plants; and have been eating ripe and luscious, Hautbois and Longworth's since the 10th of February! These are facts. In the same spot of ground, the same varieties, treated, some without, and some with other manures, (Rhodes' Superphosphate among the number) the plants have grown slowly, flowered and dropped their fruit. I have 2,000 plants in all—1,000 Longworth's and 1,000 Hautbois. The Hautbois yield more fruit, but Longworth's make the handsomest plants, and bear earliest—this is *my* experience.

"I have some new hybridized Seedling Roses (my first attempt) coming on finely. If I get anything new out of them I will apprise you. I look for something good from the old Cabbage and the Lamarque, also from Mad. Masson and the Lamarque. I have also the common Cherokee and Lion des Combats. I devoted much time to hybridizing last year. I planted the seeds early under glass, in thumb pots, and have them now in the ground. I have also grafted the White Muscat Grape on our common Bullace.

V. S.

If "flowers are the alphabet of the angels" the little cherubs and seraphs will soon be able to study their letters from a new edition of the floral primer, for this bland and delicious weather is starting every bud and swelling every sprig.

How is it that trees can put on a new dress without opening their trunks? It is because they *leave out* their summer clothing.

HAW-THORN ON PEAR.

EDITORS SOUTHERN CULTIVATOR—Your correspondent, D. M., of Osika, Miss., in the April number of the *Cultivator*, is too fast. The Haw-thorn is a dwarf and a very slow grower; and if transplanted, that operation will make it slower. If Pear is grafted on White thorn (red berries) it will take readily, but it will be a dwarf, and only fit for ornament to place in court yards or pleasure grounds near a dwelling. For orchard stocks the Angiers Quinee, is now considered the most approved stock for the Pear, as this will attain a tolerably good size, is productive and bears early; also, Pear seedlings of the size of one and a half to two inches in diameter, are good stocks for the Pear and will make early bearers.

If large Thorn stocks two inches or more in diameter are grafted, with Pear or Apple, on the spot where they have grown from the seed, they will bear much earlier than on small transplanted stock. Some large Thorn stocks which I grafted last spring, just about a year ago, as high as four or five feet from the ground, have grown during the year some three or four feet high.

It must be observed that some Pears will not take on Quince, and probably not on Thorn, and some come to bearing at a much earlier period than others. The Duchesse d' Angouleme, Bezi de Montigny and Duc de Bordeaux, are amongst the earliest I have tried. The slow bearers might not come to full bearing, if on small Thorn stocks, in 15 or 20 years!

I have Apples grafted on Thorn stocks one inch and a half in diameter, just below the surface of the ground, which bloomed the fourth year, but did not bear till the seventh, and now, the eighth year, are very full of blooms and promise a full crop. These were grafted upon the spot where they grow, in an orchard. The Apple on the Thorn, will do better than the Pear.

Any person desiring to plant an orchard should procure from a nurseryman, ten or twelve or more good sized grafted Pear trees and as many Apples, all of known good qualities, some early and some late. These, if properly set in the ground and cultivated, will produce fruit in three or four years; and from them one may graft annually some 30, 50 or 100 stocks at *libitum*, and so increase an orchard in a few years as large as it may be desired, without incurring any great expense. But to start an orchard on transplanted Thorn stocks, especially of small size, would require an age to bring them to maturity.

D. P.

Mount Zion, Ga., March, 1859.

FRUIT TREES FOR THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—Will some of your many contributors or nurserymen prepare apple and peach grafts for our Southern climate? I have tried for ten years to have an orchard and have failed. The borer or worm in the root destroys all my trees. I suppose I have set out some 500 or more, and have never received in return ten bushels of fruit, either peaches or apples. The quince, plum and pear all do well with us in the prairies.

Could the peach and apple be grafted into the plum successfully or not? If so, I would guarantee a sale of a fine lot of fruit trees in our State—Mississippi.

If any gentleman has a lot of trees grafted into the pear plum or quince, I would be glad if he would advertise the same in the *Cultivator*. By this means he can find a purchaser for his trees.

PLANTER.

March, 1859.

AMERICAN GRAPES—LIST OF VARIETIES.

To give our readers some idea of the number of varieties of hardy or out-door Grapes (mostly *native*) now in the hands of amateurs, on trial, we furnish the following

list, made up from the note books of gentlemen possessing specimen vineyards:

| | |
|----------------------------|---------------------------------------|
| Anna, | Kingsessing, |
| Albino, | Lehman, |
| Alexander, | Lenoir, } <i>Syn. Black July,</i> |
| Alvey, | Lincoln, } <i>Thurmond, &c.</i> , |
| August, Early, | Logan, |
| Arkansas, | Lady Finger,* |
| Baldwin, | Lyman, |
| Baxter, | Lorg, |
| Blue, | Louisa, |
| Beansville, | Malaga Seedling, |
| Blue Black Chillicothe, | Mary Ann, |
| Black German, | Massachusetts White, |
| Blond, | Marion, |
| Blue Favorite, | Martinsburg, |
| Brinkle, | Miles, |
| Black July, | Minor, |
| [or Lenoir, Lincoln, &c.,] | [or Venango.] |
| Camak, | Mountain, |
| Cape, | Motier's White, |
| Canadian Chief,* | Morse, |
| Canby's August, | Morin, |
| Cassady, | Meadville, |
| Catawba, | Northern Muscadine, |
| Catawba, Mammoth, | Naumkeag, |
| Clawson, | Norton's Virginia, |
| Clara, | No. 7, Raabe, |
| Clinton, | No. 8, Raabe, |
| Concord, | Ohio, |
| Creveling, | Old House, |
| Clappier, | [or Harris.] |
| Cowan, | Ontario, |
| Cherokee, | Penn, |
| Child's Superb,* | Perkins, |
| Carter's Fall, | Pauline, |
| Caradeuc, Nos. 1 to 6. | [or Burgundy.] |
| Creeling, | Pitt's White, |
| Carter, | Raabe, |
| Charter Oak, | Rebecca, |
| Delaware, | Red Traminer,* |
| Delaware Burgundy, | Raisin, |
| Diana, | Reissling,* |
| Devereux, | Sage, |
| Early Amber, | Secord, |
| Edwards, | Springstein, |
| Elsingburg, | Swatara, |
| Emily, | Schnicke's New Red, |
| Eschol, | Scuppernong, |
| Franklin, | Shaker, |
| Guarriques, | [or Union Village.] |
| Graham, | Saluda, |
| Gross, | Seabrook, |
| Guignard, | Screw Pit, |
| [or Herbemont], | Thurmond, |
| Hartford Prolific, | [or Lenoir, Lincoln, &c.,] |
| Herbemont's Madeira, | To Kalon, |
| [or Warren, or Guignard.] | Tryon, |
| Hyde's Eliza, | Union Village, |
| Harris, | [or Shaker.] |
| [or "Old House," | White Coleman, |
| Isabella, | Wilmington, |
| Isabella, Maryland, | Wine Home, |
| Isabella, New, | Winslow, |
| Isabella, Wright's, | Warren, |
| Isabella, Paign's Early, | [or Herbemont.] |
| King, | Walker's Fall, |
| Kilburn, | York Madeira, |
| Kilvington, | Young, &c., &c. |

* Those marked with a star (*), are of foreign origin; but generally succeed well in the open air.

There are, also, several known synomymes, many of

which are noted; but the list shows at least one hundred distinct varieties of *native Grapes* now in cultivation.

These comprise nearly all qualities and properties that are desirable, either for the table or wine; and it will not be difficult to make selections from the list suitable to all localities in the Union.—EDS.

*For the Southern Cultivator.
NANTAHALEE.**

You've heard, I think, of the beautiful maid,
Who fled from Love's caresses,
Till her beautiful toes were turned to roots,
And both her shoulders to beautiful shoots,
And her beautiful cheeks to beautiful fruits,
And to blossoming spray, her tresses!

I've seen her, man! she's a'living yet
Up in a Cherokee valley!
She's an apple-tree! and her name might be
In the softy musical Chewkee,
A long drawn—"Nantahalee!"
'Tis as sweet a word as you'll read or write;
Not quite as fair as the *thing*, yet quite
Sufficient to start an old Anchorite
Out of his ashes to bless and bite
The Beautiful "Nantahalee!"

Torch Hill, Ga., April 1, 1859.

*A famous Southern Apple—EDS.

FIGS AND GRAPES!—FLORIDA LANDS AND CLIMATE.

EDITORS SOUTHERN CULTIVATOR—Will some of your contributors furnish me, through the pages of your valuable journal, with some information in regard to the culture of the Fig?—the best varieties for table use, as well as for drying; the most approved mode of drying, &c., &c. I am situated in a region of country admirably adapted to the cultivation of this delicious fruit, as the trees attain a large size and bear very abundantly. Would it pay to raise figs and dry them for market in this country?

I also want information with regard to the important subject of Grape Culture and Wine Making in this climate (latitude 29°.)

If any of your readers, Messrs. Editors, wish to find a good country where they can make money by raising Long Staple Cotton, Sugar or Tobacco, and at the same time enjoy as delightful a climate as they can find in the world—a climate that perfects the peach, apricot, plum, fig, grape, orange and lemon, and is yet salubrious in a marked degree—let each come to East Florida; nay, let them come to Marion county—one of the finest counties in the State.

Now, that Uncle Sam has nearly completed the removal of the savage Seminoles from the limits of Florida, and since it is established by statistical evidence that in point of health she will compare favorably with the healthiest of her Southern sisters, and is far ahead of the Western States; since there is now no doubt of the speedy completion of several important Railroads in the State; in view of all these things, why should not emigrants from Georgia and the Carolinas sometimes turn their steps towards this beautiful and fertile "Land of Flowers" instead of rushing in crowds to the bottom lands of the Far West, to die with cholera or be washed out into the Gulf of Mexico by the spring floods, which, alas, too often blast the hopes of

the planter, and, subsiding, leave disease and death behind them.

But I will stop, for fear some may think I have lands to sell, and therefore wish to induce immigration. But I am not a land-seller. I only want to see this country settled up by good law-abiding, energetic, thinking farmers from Georgia and the other older States. We want more good citizens, good schools and churches, and we want the *Cultivator* and other agricultural papers to teach the people how best to realize the profits of the farm and to build for themselves and their children beautiful and comfortable homes—abodes of elegance and plenty—to teach them to combine the useful and the beautiful.

I love the *Cultivator*. In its new and becoming dress it is really a gem—a book to be sought after and read and studied by all who love good common-sense reading on agricultural topics; by all true lovers of Mother Earth.

May success ever crown your laudable efforts for the distribution of knowledge, and may you never be without "a dollar or two" by way of remuneration for the good you have done and are doing.

Enclosed please find four letter stamps, and mail to my address a copy of the book "Grape Growing and Wine Making in the South." Very respectfully, &c.,

W. H. H., M.P.

Wacahootie, Marion, Co., Fla., March, 1859.

FLOWERS.—How the universal heart of man blesses flowers! They are wreathed around the cradle, the marriage altar, and the tomb. The Persian in the far East delights in their perfume, and writes his love in nosegays, while the Indian child in the far West claps his hands with glee as he gathers the abundant blossoms, the illuminated Scriptures of the prairies. The Cupid of the ancient Hindoos tipped his arrows with flowers; and orange flowers are a bridal crown with us, a nation of yesterday. Flowers should deck the brow of the youthful bride, for they are in themselves a lovely type of marriage. They should twine around the tomb, for their perpetually renewed beauty is a symbol of the resurrection. They should festoon the altar, for their fragrance and their beauty ascend in perpetual worship before the Most High.

TRUSTING TO A SINGLE CROP.

THERE is no crop that does not fail sometimes, though there are a few which are never cut off in any season. Grass, for example, always yields a partial crop, and a person may, if needs be, depend wholly upon this product as a means of subsistence. The same thing, however, can hardly be said of any other staple crop. Innumerable illustrations might be given of the danger of depending upon a single crop. The result in Ireland of relying upon the potato crop is patent. The failure of the wheat crop, in many parts of this country, has involved thousands of farmers in debt, which it will take years of toil and economy to liquidate. A friend at the West has been so successful in raising peaches, that he turned his whole attention to that crop. Last year he realized a large net profit, and, looking for still greater results this year, he laid out his plans accordingly and incurred considerable debts to be paid from the proceeds of his peaches. The result is that from some five or six thousand trees, he gathers scarcely two bushels of marketable fruit.

A mixed cultivation is the safest in the long run. If the potato crop fails, let there be corn, wheat, barley, or other grain to fall back upon. The chances of utter failure are diminished a thousand fold where there are three or four different crops under culture. A season destructive to one, is likely to be just the thing for the others.—Am. Agriculturist.

In seasons of war and pestilence, Death seems to exchange his scythe for a patent-mower.

AGRICULTURAL LIBRARY.

EDITORS SOUTHERN CULTIVATOR—I am in receipt of your valuable and very interesting number for April, and in it I see an answer, on page 112 to a correspondent, W. M. B., recommending the "Cotton Planter's Manual" for reference in regard to the value of cotton seed as a manure, and adding that "it will pay for all planters to furnish themselves with the leading Text books of their profession." Now, I am exactly of the same opinion, and I will be under great obligations to you, Messrs. Editors, if, in your May number, you will direct, among the answers to correspondents, one to J. E. W., recommending some of those text books of the profession that are valuable and worth having. I know there are such, and you are better acquainted with them than any one else I can refer to; at least I would rather have your opinion. I ask this from a desire to increase my stock of information in regard to farming, for I am a young planter, just entering upon my new avocation, and I want to get things going systematically. I have no doubt such a communication from your journal would be received with satisfaction by many of your subscribers. I take the *Farmer & Planter* also, and that and your journal are my most welcome visitors. I hope you will think this no intrusion, as I am anxious to derive the information.

Yours very truly, J. E. W.

Florence, S. C., March, 1859.

We take great pleasure in responding to the wishes of our subscriber, and append the following, as a very good list of Text Books in Agriculture and kindred sciences:

AGRICULTURE, GENERALLY:

| | |
|--|--------|
| Thaer's Principles of Agriculture..... | \$2 00 |
| Beatty's Southern Agriculture..... | 1 00 |
| American Farmer's Encyclopedia..... | 4 00 |
| Boussingault's Rural Economy..... | 1 25 |
| Stephens' Book of the Farm..... | 4 00 |

BOTANY AND GEOLOGY:

| | |
|--|--------|
| Gray's Botanical Text Book..... | \$1 50 |
| American Weeds and Useful Plants..... | 1 50 |
| Johnston's Elements of Agricultural Chemistry and Geology..... | 1 00 |

GARDENING:

| | |
|---|--------|
| White's Gardening for the South..... | \$1 25 |
| Johnson's Dictionary of Modern Gardening..... | 1 50 |
| Schenck's Gardener's Text Book..... | 50 |

FRUIT CULTURE:

| | |
|---------------------------------------|--------|
| Downing's Fruits and Fruit Trees..... | \$1 50 |
| Elliott's Western Fruit Book..... | 1 25 |
| Barry's Fruit Garden..... | 1 25 |
| Thomas' Fruit Culturist..... | 1 00 |
| Allen on the Grape..... | 1 00 |
| Buchanan's Grape Culture..... | 75 |
| Charlton's Cold Grapery..... | 50 |

MANURES AND COMPOSTS:

| | |
|--|--------|
| Browne's American Field Book of Manures..... | \$1 25 |
| Dana's Prize Essay on Manures..... | 25 |
| Dana's Muck Manual..... | 1 00 |
| Ruffin's Calcareous Manures..... | 1 25 |

AGRICULTURAL CHEMISTRY:

| | |
|---|--------|
| Leibig's Complete Works on Chemistry..... | \$1 50 |
| Johnston's Agricultural Chemistry..... | 1 25 |
| Stockhardt's Chemical Field Lectures..... | 1 00 |
| Norton's Scientific Agriculture..... | 75 |

FLOWERS AND BIRDS:

| | |
|---|--------|
| Buist's American Flower Garden Directory..... | \$1 25 |
| Buist's Rose Manual..... | 75 |
| Breck's Book of Flowers..... | 1 00 |
| Book of Caged Birds..... | 1 00 |

ARCHITECTURE AND LANDSCAPE GARDENING:

| | |
|------------------------------------|--------|
| Downing's Landscape Gardening..... | \$3 50 |
| Downing's Cottage Residences..... | 2 00 |
| Rich's American Architect..... | 6 00 |
| Vaux' Villas and Cottages..... | 2 00 |
| Allen's Rural Architecture..... | 1 00 |
| The House..... | 50 |

HORSES:

| | |
|--------------------------------------|--------|
| Youatt and Skinner on the Horse..... | \$1 25 |
| Dadd's Modern Horse Doctor..... | 1 25 |

CATTLE:

| | |
|---------------------------------------|--------|
| Youatt and Martin, by A. Stevens..... | \$1 25 |
| Allen's Domestic Animals..... | 75 |
| Dadd's American Cattle Doctor..... | 1 00 |
| Milch Cows and Dairy Farming..... | 1 50 |
| Guenon on Milch Cows..... | 38 |

HOGS:

| | |
|-----------------------------------|-------|
| Youatt and Martin on the Hog..... | \$ 75 |
| Richardson on the Hog..... | 25 |

SHEEP:

| | |
|---------------------------------|--------|
| Randall's Sheep Husbandry..... | \$1 25 |
| Morell's American Shepherd..... | 1 25 |
| Canfield on Sheep..... | 1 00 |

POULTRY:

| | |
|--|--------|
| Bement's American Poulterer's Companion..... | \$1 50 |
| Brown's American Poultry yard..... | 1 00 |
| Miner's Domestic Poultry Book..... | 75 |

BEEES:

| | |
|---|--------|
| Miner's American Bee Keeper's Manual..... | \$1 00 |
| Quinby's Mysteries of Bee Keeping..... | 1 00 |

MISCELLANEOUS:

| | |
|---|--------|
| Lindley's Theory of Horticulture (English)..... | \$6 50 |
| Field's Pear Culture..... | 75 |
| The Cotton Planter's Manual..... | 1 00 |
| Munn's Practical Land Drainer..... | 50 |
| Pedder's Land Measurer..... | 50 |
| Fish Culture, by Dr. Garlick..... | 1 00 |
| Flint on Grasses..... | 1 25 |
| Hedges and Evergreens, by Dr. Warder..... | 1 25 |
| Moore's Rural Hand Books, 4 series, each..... | 1 25 |
| Chemistry of Common Life..... | 2 00 |
| &, &c., &c. | |

All of the above are either published by, or may be obtained from A. O. MOORE & CO., 140 Fulton St., New York; and where neighbors club together and order largely, a considerable discount will be made from the regular prices. Any desired book or books will, also, be sent per mail, *free of postage*, upon the receipt, by the publishers, of the above prices.

The back volumes of our journal and other Southern agricultural periodicals, are also indispensable; and can mostly be obtained from the publishers, already bound, at a trifling advance on the subscription cost. The *Cultivator* is furnished, neatly bound, at \$1.50 per volume, or \$1.80, sent per mail, *post paid*. Address WM. S. JONES, Augusta, Ga.

CONSOLATION.

"A little while, a little while,
And each his burden will lay down,
And he who sorrows now will smile
To find his cross hath won a crown!
A little while, ye weary, wait,
Some pitying Day will beckon you
To enter at the Golden Gate
Life's thorny path hath led you to."

CHUFAS, GRASSES, &c.

EDITORS SOUTHERN CULTIVATOR—Accept my many thanks for your kindness in answering my inquiries. And do me again the favor of answering the following:—Where can I get a few tubers of Chufa, or Ground Almond? If you have them, or can have them sent per mail, or by Railroad, to Doctor Town, care or E D Hendry, Savannah, Albany and Gulf Railroad, do so, and I will remit.

I want to try a pasture of the grasses. Please inform me what species would most likely succeed upon this light soil? I propose to try a pond or savannah which I have partially drained; all the fallen water runs off in a day or two at farthest—the top of the surface is a black mould, with a white sand subsoil, and a sandy pipe clay within three or four feet. I have bought of Reese's Manipulated Guano, which I propose to apply at the rate of 2 to 300 lbs. I would apply Lime, but that it is so far to haul; yet will, if you think best. I am confident that the soil has too much sulphuric acid in a free state to succeed with, it prejudicial to the Grasses that would be most suitable for the South. I see Dr Philips, of Miss., seems to think best of the Bermuda. Having no experience and wishing to start right, if possible, I impose thus upon you.

I would like to buy a few head of a superior head of Sheep. I have commenced to buy me a stock of sheep and am picking up a few in every direction. Please tell me the best and where I can get them to my place; also where I can get the grass seed you may recommend. I live some 25 miles from the Savannah, Albany and Gulf Railroad.

HENRY J. SMITH.

Holmesville, March, 1859.

WE cannot say where the Chufa may be had. It is of small value in this country. Open sufficient ditches in your level ground, that is occasionally inundated, to carry off all the water to the depth of thirty inches. This drainage will wash out of the soil all injurious acids and acid salts, and thereby sweeten it for the growth of nutritious grasses. As soon as you conveniently can, give the ground a top dressing of lime. Sow wood ashes over the land if you can get them; but, above all, see that it is properly drained. Stagnant water is fatal to every valuable plant. Even rice require a change of water. See that the out fall of your ditches is all right, and that they are kept open everywhere.

The best single grass for your first trial is the Meadow Foxtail Grass, (*Alopecurus pratensis*) a valuable perennial. In general appearance it resembles Timothy, but is better adapted to low wet land like most savannahs in sandy districts. HANHAM describes Fox-tail grass as being "one of the best of meadow grasses, possessing the three great requisites of quantity, quality and earliness in a degree superior to any other." It is often fit for the scythe by the middle of May in England, and might be cut in April in the climate of Central Georgia. It flowers twice a year, and according to the highest English authorities, it yields more weight and bulk of forage than any other grass. It is well suited for permanent pastures on a moderately light soil, with a good supply of moisture.

MR. SINCLAIR says: "The Meadow Fox-tail forms a part of the produce of all the richest pastures I have examined in Lincolnshire, Devonshire and in the vale of Aylesbury.

In Mr. WESTERN's celebrated pastures at Creslew I found

it more prevalent than in those of Devonshire and Lincolnshire." HANHAM characterises it as being "not only remarkable for its early growth, but equally so for its lateness." It will grow in this State all winter.

The "Smooth-Stalked Meadow Grass," (*Poa pratensis*) and the "Rough-Stalked Meadow Grass" (*Poa trivialis*) both perennial, are probably the next best grasses to cultivate. After these come the "Reedy Sweet Grass," (*Glyceria aquatica*), "Meadow Fescue Grass" (*Festuca pratensis*), "Common Cats-tail" or Timothy grass (*Phleum pratense*), Tall Oat Grass, Orchard Grass, and Blue Grass, which we have before described.

Remember at least two things in grass culture. The first is to sow seed on well-prepared ground, plowed and harrowed fine and smoothly. The second is, not to cover the seed too deep in the soil. Use a light brush and a roller in putting in seed. Keep all stock off the young grass until its roots are fully developed.

You will probably have to send or go North to obtain the first quality of improved Sheep. For wool-growing, the Merinos are the best, either the Spanish or French.

L.

DIGNIFY AND EXALT AGRICULTURE.

EDITORS SOUTHERN CULTIVATOR—I feel that it is somewhat presumptuous in me to trouble you with crayon sketches, nevertheless I venture.

Why is it generally considered that the profession of the farmer is an unworthy occupation for a man of talent? From time immemorial there has been an error in the minds of men, the effect of which is to separate in point of rank, labor and gentility. This error, like the leaven of old, hath continued to spread itself from age to age and from country to country until it has reached our own bright land and brilliant age. The consequences have been the crowding into the ranks of the farmer of ignorant men, unfit for anything; hence the profession has ceased to be respected even by its own members and of course by other professions.

Again. There is another principle that serves to degrade the farmer. 'Tis that material idea which reigns in all professions, but probably to the greatest extent in ours. I speak of that principle that would resolve everything into the "dollar and cent;" it is this principle that deprives the farmer of a good library, and his children of an education; the same which "keeps them shelling corn during the long nights of winter," instead of feeding the soul with good reading. The grinding of the mill, the rattle of the railroad constitute the music most complainant to the ears of men. This inordinate passion is like the lean kine of the dreaming monarch, swallowing up every other better purpose.

Can we expect the beauties of our profession to be developed under such influences? Can we expect the educated and aspiring youth to turn his attention to a profession that promises no reward to genius? Is it not reduced almost to an ordinance among farmers, to look with an eye of suspicion upon the man of science? "Hang him with his pen and ink horn about his neck," is the universal verdict. How often do we see talent languish in our midst? How often do we scorn the man who would tell us how "peas and corn grow?" That their growth is governed by fixed laws, and that those laws are subject to explanation. No matter how great may be his intellect, no matter though he could thread and untangle almost with the ease of intuition, the thousand little intricacies over which we blunder and fumble with painful perseverance, he is elbowed aside in the press of life to make room for men as far his inferior as the shrivelled shrub of a summer's garden is to the tempest-stemming pine.

B. F. K.

Near Okalona, Miss., March, 1859.

A WORLD OF LOVE AT HOME.

BY J. J. REYNOLDS.

The earth hath treasures fair and bright,
Deep buried in her caves;
And ocean hideth many a gem
With his blue, curling waves;
Yet not within her bosom dark,
Or 'neath the dashing foam,
Lies there a treasure equaling
A world of love at home.

True, sterling happiness and joy
Are not with gold allied;
Nor can it yield a pleasure like
A merry fireside.
I envy not the man who dwells
In stately hall or dome,
I'mid his splendor he hath not
A world of love at home.

The friends whom time hath proved sincere,
'Tis they alone can bring
A sure relief to hearts that droop
'Neath sorrow's heavy wing,
Though care and trouble may be mine,
As down life's path I roam,
I'll heed them not while still I have
A world of love at home.

WINE CELLARS OF BREMEN.

No city in the world can boast of possessing a greater or more costly treasure in the form of wine, than Bremen. The Bremen Town Hall cellar is famous all over the world were it only by the light than Hauff's imagination has thrown over the subterranean premises. The traveller, whose route leads to Bremen, will seldom fail to visit it, for it contains the oldest Rhenish wines extant—and here the Twelve Apostles, with Judas Iscariot strangely placed at their head, have for more than two centuries dealt out the choicest Hock and Johannisberg. The patriarch, among the contents of the capacious cellar, where, in former days, the East India captains used to lay their accounts before their ship-owners, is the Rose Wine. As a sign of its value and superior dignity, it is kept apart in a separate cabinet, surmounted by a rose, and the door of the inclosure can be opened only by official authority.

In the year 1624, six pipes Johannisberg, and an equal quantity of Hock, were placed here by the magistrates, with directions that the Burgo-master should yearly distribute a small quantity, either in presents, or for the use of the sick, by order of a physician; the supply being gratuitous to the poor, and at a cost of five thalers (of cts. seventy eight) a bottle to those able to pay. To the citizens of Bremen alone, is reserved the privilege of introducing a distinguished stranger into this sanctum, and after special permission, personally granted, he may (at the proper cost) entertain his guest with a bottle of the precious beverage. What is thus lost by annual consumption, is replaced from casks of the vintage next in date.

The value of wine consists chiefly in its age. A pipe of it in 1624 cost 300 thalers, estimating the interest of the capital at 5 per cent. and the necessary current expenses at an additional 5 per cent., the capital at compound interest would double itself in seven years, and thus in the year 1858 each pipe of the Rose wine represented a value of 1,714,980 millions 441,413 thalers, and allowing 1320 bottles to a pipe, each bottle is worth 1299 millions 227,607 thalers. A bottle contains 8 glasses, each one of which costs 162,403,450 thalers, and the drop which is spilled or left in the glass, computing it to hold a thousand costs 162,403 1-3 thalers.

The people of Bremen, above all other people, are proud of their treasure, and it was, deemed a high mark of their esteem when the magistrates, at the suggestion of their counsellor, Dr. Meyer, presented Goethe with several bottles on his birth day in 1823, after his recovery from a severe illness. Goethe knew how to appreciate the honor and the value of the gift; he delayed the enjoyment of it, postponing it until October, when the Diet met at Frankfort-on-the Mayne, and his old friend, Count Leinhard, the French ambassador, helped him to empty the first bottle.—*North American.*

GENERAL IMPORTANCE OF AGRICULTURE.

EVERY reflecting man recognizes the nature, and admits the value of agriculture; yet every such man is not himself a farmer, nor can he conveniently become one—the lots of many being cast in other departments of labor. Probably there are more who would cultivate farms, if they were fortunate enough to possess them, than there are who, possessing them would forsake them for a vocation less stable. Age, with its wisdom, likes the farm better than youth with its too frequent vain show and empty aspirations.

If it be true, as Montesquieu observes, that "countries are not cultivated in proportion to their fertility, but to their liberty," then republican America must soon rank second to no other nation in her perfection of agriculture. Our agricultural population may not directly lead or control the country, yet they hold the truest sword in defence; and in the heat of any contest will imbibe new courage from the recollection of their pleasant and enduring fields at home.

I desire to present some thoughts upon this subject, in the form of distinct propositions.

1. As the roots and trunk of a tree are to its branches, so is agriculture to society, it upholds it, and draws from the earth and dispenses its nourishment to the different branches of the social fabric, while at the same time it derives new vigor from a vital reciprocity. Hence,

2. Agriculture is the foundation of a well established nation, and the most stable element of its wealth, independence, and greatness. Therefore,

3. Agriculture should receive the fostering care of the State, and the respect and encouragement of every patriot.

4. Every farmer, to prosecute his business successfully should feel and cherish an ambition in it, and a conviction that he is just the man for it; and, however unlettered he may be, under such incentives he will make great progress, not only in the profitable cultivation of his farm, but also in mental improvement. If he has not the stimulus of emulation, he should choose a business where he may be thus prompted, as agriculture can well spare the "slothful in business."

5. Although farmers as a body may never expect to become erudite scholars, each and every one would be greatly benefitted by a small library of standard and miscellaneous books. They are faithful companions that always instruct and elevate.

6. If it be the "mind that makes the man," it is not alone in its intellectual phrase, but also its moral. Every farmer who chooses, can attain to a degree of intellectual culture, and to a moral standard second to none. He can and ought to make himself the "highest style of man."

7. Although, in their well being, vocations are mutually dependent, to a greater or less degree, the farmer should never mistrust the value of his profession, but should defend its dignity and worth by a commensurate independence before all men.—*Genesee Farmer.*

 We can, perhaps, tolerate a man who has just ignorance enough to talk among fools, if he has discretion enough to be silent among men of sense.

COTTON PROSPECTS FOR 1859.

THE Liverpool *Times* contains some valuable speculations on this subject. The highest estimate of the cotton crop is taken as part of the data of his calculations. He states the American crop at 3,600,000 bales; the East India crop at 580,000; Brazil, Egyptian and West Indian at 240,000; making a total of 4,520,000 bales. Of this amount the United States will consume 700,000. Exports from the United States to England will reach 1,900,000, of which 100,000 will be re-exported to the Continent and 20,000 probably be lost at sea, making the actual receipts for consumption from the United States 1,780,000. The Continent will consume of our cotton 1,000,000 directly exported and the 100,000 above named from England, 1,100,000. Of the East India crop, it is estimated England will take 300,000, and the Continent 280,000. Of the Brazil, Egyptian West Indian crop, England will take the whole 240,000 bales. The distribution will then be as follows:—Great Britain from all sources, 2,350,000, minus 20,000 lost by casualties at sea; the Continent, 1,138,000; the United States, 700,000; total 4,420,000. The writer concludes his letter with the following speculation about *price*, which we commend to our readers who are interested in the great staple:

We feel, however, that there is room for greater divergence from our views on the side of deficiency than abundance; for if the peace of Europe is preserved there is every reason to hope for a year of unexampled prosperity to the manufacturing interest, and it would not surprise us if the consumption of the kingdom reached 45,000 bales per week. If, concurrent with this, the American crop provided only 3,500,000, and our computed export to England was abridged 100,000 bales, it is obvious that the interests of Lancashire would be jeopardised. It seems, therefore to be clearly the wisest policy for manufacturers to encourage for another season at least a tolerably high scale of prices for the raw material; for it is in the last degree injurious to their interests that the stability of their trade should be liable to be disturbed by a trifling marginal deficiency in the annual supply. It does not appear, then, that much lower prices than the present are justified, viewing the question commercially; and, if trade is allowed to pursue the even tenor of its way, undisturbed by political commotions, it is not likely that prices will vary materially from their present level. At the same time it is obvious that they are no longer so absolutely controlled by the elements of supply as they have been for the last two years. There is now no immediate danger of a positive scarcity of cotton, and, therefore, prices are more liable to the action of secondary causes, and a feeling of distrust, such as might be occasioned by a European war, would have full scope for producing very serious results.

Liverpool, Jan. 15, 1859.

FLUENCY OF SPEECH—The common fluency of speech in men and women is owing (says Swift) to a scarcity of words; for, whoever is master of language, and hath a mind full of ideas, will be apt, in speaking, to hesitate upon the choice of both; whereas common speakers have one set of ideas, and one set of words to clothe them in, and these are always ready; so people come faster out of church when it is nearly empty than when a crowd is at the door.

Many a dashing fellow is like the golden fleece—a fine outside on a sheep's back.

MEASURING CORN IN BULK.

EDITORS SOUTHERN CULTIVATOR—I notice in the *Cultivator* inquiries for the most reliable rule for measuring corn in the crib. The following, I think, comes *nearer* than any other, though it is *impossible* to find any rule that will be *exact* in all cases.

Reduce the length, height and width to inches; multiply together, and divide by 6171.

This rule was obtained as follows: We took a wagon body measuring 12 feet 6, 3 feet 4; by 3 feet. The 12 feet is 150 inches; the 3 feet 4 is 40 inches, and the 3 feet is 36 inches.

Now, 150 multiplied by 40 is 6,000, which, multiplied by 36 gives 216,000, being the number of square inches in the wagon body. The wagon body was then evenly and closely filled with corn in the shuck, which on being shelled, produced 35 bushels of shelled corn.

We then divided the 216,000 by the 35 and it gave 6171 and a small fraction, showing that it took 6171 square inches of corn cob and shuck to produce one bushel of shelled corn.

A correspondent in the March number of the *Cultivator* asks how much corn is in a room or crib 20x15x9 feet? 20 feet is 240 inches, 15 is 180, and 9 is 108 inches; 240 multiplied by 180, and that by 108 makes 4,665,600 square inches in the room; which, divided by 6171 gives 756 bushels of shelled corn in the room.

Yours truly,
O. K.
Columbus, Miss., March, 1859.

A GEORGIA NEGRESS IN AFRICA.

THE Charleston *Advocate* is publishing a series of descriptive letters from the pen of the Rev. C. W. Thomas, Chaplain in the United States Navy, now in Africa. We subjoin a few extracts:

"In passing through the native market next morning in company with Lieut. M., our attention was arrested by a stand of ginger cakes and beer, behind which sat an old black woman in neat calico dress and white head-kerchief with the unmistakable tie and set of the low country house girl of the Southern States. "This reminds me of Georgia," said one of the party. "I come from dare?" exclaimed the old lady, rising to her feet. "From where?" asked Lt. M. "From Savannah." "What is your name?" "Catharine." "Where did you live?" "At de 'Our House,' Mossa." "Did you know Col. M.?" said I, referring to the father of my companion, an old and distinguished citizen of Savannah. "O yes, Mossa!" said she, mentioning at the same time the names of several of the family. "Would you know Julian now," said I, casting a glance at my friend. "Dunno, Mossa; Jule be little boy den." "Look at this man," said I.

"She gazed a moment, and grasping his hand, exclaimed "De Lord help my poor soul, if this aint Moss Jule! Tank de Lord! Praise the Lord! I see some my people one time more!" Then followed many inquiries after old friends, a sketch of her life since she left Georgia, and the touching question, "Can't you take me back to my people?" He explained that this was impossible, and, emptying the contents of his purse into her hands, bid her good bye with a softened voice. "Tell my broder an sister of Andrew Marshall church," said she, "that I been see heap trouble; but my Jesus been wid me and I try meet um ober yonder."

"Poor woman! she had been set free at the age of forty and sent to Liberia, but her husband, becoming dissatisfied, came to this place, where he died, leaving her helpless; but the white residents buy her cakes, and she makes a scanty living."

ROLLING COTTON SEED.

EDITORS SOUTHERN CULTIVATOR—The very sensible remarks of Dr. J. E. Pearson in your most excellent April number, on the subject of Rolling Cotton Seed, for planting, has almost superceded the necessity of anything being said on this subject by me. I positively know from practical experience that everything he says on the subject is true, so far as rolling cotton seed in ashes or lime is concerned—I never tried guano.

I would only commend the Doctor's article to the notice of all cotton planters as worthy of consideration and drop the subject at present, and until somebody "pitched into" him, and then I would pitch into them; but for the fact that some, and many, good planters in this country oppose the practice on the ground, solely, that cotton seed, when they are wet and "rolled," "swell and start to germinate very soon after planting," and, therefore, if perchance the ground should dry down to them in that condition, the germ will be destroyed, and you lose your stand. Now, so far as that is concerned, it is true; but that "germinate very soon after planting" is unfortunate in the argument. The sooner cotton comes up after planting the less chances you run of having your stand injured by heavy rains, or from the ground drying to the seed. And, again, all cotton seed planted dry must, of course, get into the "swelled and germinating state before it comes up, just as the "rolled seed" does, only it is longer at it, and, consequently, gives more time for the earth to dry down to the seed, or heavy rains to destroy the stand. Why did you not think of that before, dry seed planter?

I have tried both plans; and for the past 9 years I have rolled my seed, and I have had the finest success in getting No. 1 stands.

If any of your readers are in want of the best plow in the South let them order from Philips & Kells, Jackson, Miss. They are putting up the Brinley Plow there, under the superintendence of Mr. Brinley himself, "according to Hoyle."

Dr. M. W. Philips, one of the firm, knows as much about a plow as any planter I ever saw, and Mr. T. E. C. Brinley has brought to perfection the best mold of a plow I ever saw or tried; and Dr. P. was of the same opinion years ago, and so informed the public.

The "Father of Waters" is again, I regret to say, laying waste the beautiful plantations on both sides of the river, and still rising. Yours, &c., G. D. HARMON.

Milliken's Bend, La., March 30, 1859.

WINTER APPLES, &c—Our readers may recollect that we acknowledged last fall the receipt of some fine looking apples from the orchard of Mr. Geo. Walker of Pulaski county. Two varieties of this fine fruit have remained in our office up to within few days, and were very much improved in flavor by age. One of the apples is still left. Our object in this statement is to show that the claims of Georgia as a fruit growing country, have been too long overlooked. We have no doubt but we may have fruit of some kind of our own raising, all the year round. Indeed, last week we had a presentation of strawberries of this season, and a specimen of Georgia apples of last fall, still in our office. We hope to see greater attention paid to fruit growing in our State.

To show the importance that is attached to the peach crop of Georgia, we will state that an agent from New York was in Macon, recently, for the purpose of making engagements for the early shipment of this delicious fruit to the North, should the season be propitious.—*Journal & Messenger.*

 The poetical cry of "Westward ho!" is fast filling our territories with rakes.

SHEEP RAISING IN TEXAS.

THE Gonzales Enquirer replies to the queries of a North Carolinian who had written to the editor for information relative to sheep raising in Gonzales:

1st. What quantity of wool could probably be purchased for cash in your county, and the adjoining counties, at the clipping season?

Answer.—I cannot reply as to the quantity of wool that can be purchased in this and the adjoining counties. There are within four miles of this place about 1500 head of sheep which will furnish 6,000 pounds of wool next spring, all of which I suppose can be bought for cash.

2d. Where does your wool find a market, and what are the facilities for getting it to the coast!

Answer.—Our wool markets are any of the seaport towns of the United States; we get it to the coast on ox wagons (a distance of 100 miles,) for 50 cents per hundred pounds.

3d. What is the breed of sheep usually grown in your county? Have you the Saxon, the Merino, the Southdown, or the Cotswold? If any of either kind, are they numerous.

Answer.—We have all the breeds of sheep mentioned. The full blood are not numerous—only sufficient to supply bucks for the flocks.

4th. What description of sheep suits your county best?

Answer.—We prefer the Merino and Saxon, as they are the best wool growers, and it does not pay to sell mutton where beef and pork are so cheap.

5th. Is there much difficulty in keeping sheep through the winter? Do they require housing from storms, and can they find winter pasture half sufficient to support them?

Answer.—We never house. There is less trouble in keeping sheep in winter than summer—the greatest difficulty being to keep them from eating too much of the luxuriant grass that grows in such rich profusion around.

6th. What disease is their greatest enemy?

Answer.—I have never seen a diseased sheep in Texas, unless the so-called "screw worm" be termed a disease.

7th. Are dogs destructive to them?

Answer.—Dogs rarely ever trouble them, when they do they are sure to be shot.

8th. About what price does your wool generally bring at home?

Answer.—We have never sold wool at home. Most of our wool was sold during the panic of 1857-8, and netted but little if any over 20 cents.

9th. Is it necessary to cultivate a vegetable crop, or gather a hay crop to feed them on during the winter?

Answer.—As we do not feed our sheep on an average of ten days in the year, no vegetable crop is necessary.

In connection with the above, we would state that quite a number of our citizens have lately engaged in this business, and that many others contemplate doing so at an early day. Their flocks are of improved stock, and all expect to realize a handsome per centage on their investment.

MUTTON HAMS.—Those fond of delicacies, will find a most excellent article of dried mutton hams at the store of Howell & Johnson, Broad street. Having tried them we can recommend them for their excellency.—*Columbus Sun.*

We are surprised that so few "have tried" such luxuries. The hams of a five year old mutton, well fattened and cured, are far superior to those of venison or pork—they are certainly more wholesome than the latter. When will our people learn to do something besides raise cotton?—*Journal & Messenger.*

GROUND PEAS, OR PINDERS.

EDITORS SOUTHERN CULTIVATOR—As I rarely see an article in your paper treating upon the Ground Pea, or Pinder, I propose, for the benefit of your readers, giving a few thoughts upon making them, and their indispensable benefits to the Southern farmer. I mean an economical farmer.

There is no crop that yields so much ample pay for the labor bestowed on it as this pea. The making of them, after my manner, requires so little labor that one would think they had reaped much without giving an equivalent. In the first place, I lay off my corn land in drills, three feet and a half, planting every alternate row in corn, the other with the pea, about the middle of March; thus making each seven feet apart, giving good room to work each. The manner of cultivating them through the season is with the sweep after the first plowing, which is done by running the bar of a Dagon or turning plow next them, doing this only while working the corn. If they are properly managed at first the hoe can be kept in the cotton field, where every moment seems to require it.

I will next notice some of the benefits derived from them, giving my experience (which is but one of many) of last season as proof of this matter. I had my entire corn crop planted in this pea, after the above manner, which after gathering a cut of corn the last of August, I turned in my hogs the first day of September, and they have not had an ear of corn thrown to them up to this writing (March 22d), and were it not that the field has to be planted for the next crop there would be an ample supply for them one or two months to come.

One might ask if I raised my own pork? to which I would say, yes; and nearly double a sufficiency, that was killed from the field without a day's confinement for corn feeding.

I hope that every reader of this has discovered that there has been seven months of twelve that this stock has left the corn crib uninterrupted, which must prove a material help to the farmer. Hoping to hear some better ideas of this pea through your paper, I leave this to my planting friends.

WILLIAM P. GAMMON.

Greenwood, Jackson Co., Fla., March, 1859.

"AGRICULTURAL STATESMANSHIP."

EDITORS SOUTHERN CULTIVATOR—May I express a thought which suggested itself on reading the article in your March number entitled "Agricultural Statesman ship?"

May the day be very distant when agriculture shall sell her right to protest against all class legislation, for any mess of pottage which this Government can cook! For,

Government is, at best, a necessary evil. It never does anything well;

Therefore, the less it does the better.

2ndly. Government has nothing of its own.

Therefore, it can only give to Peter by taking from Paul;

And therefore, it is better occupied in protecting all alike, in the peaceful prosecution of whatever business their hands may find to do, and in regulating its own conduct by the requirements of the Constitution and the Ten Comandments.

A "boon" from Government, quotha?

Let our Petition assume the shape of a command.

"Let us Alone," and Agricultural Statesmanship will have "graduated."

But until some successful Guy Fawkes shall have blown up the Patent Office (and parts adjacent); or some true Statesman shall perform a like office for the "Tarrif"; and we have that good time, so long coming, of Free-trade and direct taxation, it is altogether likely that it will suit

the convenience of many people to talk about partial legislation as Statesmanship.

As you want a name, I can't think of a better in this connection than

"RANDOLPH."

March, 1859.

RE-APPEARANCE OF THE LOCUSTS,

Dr. Gideon B. Smith, of Baltimore, writes to the *National Intelligencer* that the locusts will appear the approaching spring in seven districts of the country, viz:

1st. In the whole valley of Virginia, from near the top of the Blue Ridge mountains on the east, the Potomac river on the north, to the Tennessee and North Carolina lines on the south, and several counties on the west. They will probably occupy a considerable portion of North Carolina and Tennessee, overleaping other districts.

3d. In North Carolina, from Raleigh to Petersburg, Virginia, and adjacent counties in both States.

3rd. In St. Mary's county, Maryland, the southern part of the county, occupying about one-half of the county.

4th. In North Carolina, Rowan, Davis, Cabarras, Iredell, and adjacent counties.

N. B. The above are all of the northern tribe, or seventeen years' locusts, and will commence emerging from about the 5th to 15th of May.

5th. In Georgia, Gwinnet, DeKalb, Newton and adjacent counties.

6th. In Tennessee, in the northern middle part.

7th. In Mississippi, in all the eastern portion of the State, from the ridge or "backbone" that runs north and south about forty-five miles from the Mississippi river to the eastern boundary of the State, and probably extending into the States on the east.

The three last districts belong to the *northern* tribe, or thirteen years' locusts. They will begin to emerge about the 20th of April, in the extreme southern district in Mississippi, to the 5th of May in Georgia.

A "RICE GUN."—The *Savannah Republican* of a recent date, says:

We have witnessed, at the Rice Mills of Messrs. R. Habersham & Co., the performance of a new invention for cleaning rice, which, from its similarity to a cannon, has been named the "Rice Gun." The inventor has been at work on it for several years, and has now brought it, he thinks, to perfection. The machine is somewhat remarkable. One cast iron cylinder within another, both revolving in opposite directions, and an air pump throwing a stream of air through the centre, keeping the rice cool, is the sum total of the invention. The machine is very simple, and, to our inexperienced judgment, seems to be just the thing desired by planters. The owner of the patent claims that it will clean from thirty-five to forty bushels of rice per hour and never break a grain; its performance in our presence bore out his assertion. It is calculated that a saving of ten per cent, will be effected in the whole crop by the use of this invention. It has been a few days since we mentioned that such a machine as this is claimed to be was one of the positive wants of our planters. In directing their attention to the Rice Gun, we are sure that it will undergo a thorough and practical examination, and if it meets approval will abundantly reward those who own the patent; otherwise it will end, as many others have done, in a failure. Its claims are, in our opinion, worthy of attention.

 Examine what undue passions reign most in thy soul, and take thy course of life clean contrary to them in thought, word and deed.—DESALES.

THE SOUTHEEN SEASONS.

The excessively wet winters for the past few years, and the corresponding small amount of rain during our summer months, are well calculated to produce apprehensions, lest in the grand operations of nature, our seasons may assume the marked wet and dry seasons of the torrid zones. Such a result would certainly be productive of disastrous consequences to the agricultural interests of the country. It is nevertheless a result, which nature may be capable of bringing about. The universe is a grand succession of changes in all of its parts, and it is not improbable that tendencies in the seasons, different from those formerly observed, is ominous of a settled order of things materially dissimilar to that which has hitherto existed.

The whole face of the country has been greatly changed in our agricultural operations, and while the diseases and other things incident to climate, change, may not the seasons of rain and drouth be also affected by the same or similar causes.

We advise our planters to prepare their lands, this spring, by deep and thorough plowing—for if the large amount of rain in winter betokens, as many suppose, a diminished quantity in summer, we shall have a dry season for the next crop.—*Madison Visitor.*

The foregoing suggestions are judicious and well-timed. There is nothing lost, be the seasons wet or dry, by breaking up deeply and thoroughly the soil. Superficial culture is the bane of Southern Agriculture. It will, however, continue until the proprietors of the soil shall give an enlightened direction and supervision to the details of plantation management.—*Journal & Messenger.*

AGRICULTURAL SOCIETIES.

A very interesting sketch is given in the Patent Office, just published, of the origin, number, condition, &c., of the various State and county organizations in existence throughout the United States, for the promotion of agriculture.

The first agricultural association incorporated in this country was the "Society for the Promotion of Agriculture," established in South Carolina in 1785. In 1791, a "Society for the Advancement of Agriculture, Arts, and Manufactures" was founded in the city of New York, but it ceased to exist in about ten years. Next in chronological order is the "Massachusetts Society for Promoting Agriculture," which was incorporated in 1792, and contributed largely to the advancement of its objects. Some of its members, residing in the county of Middlesex, afterwards organized the first county agricultural association formed in the United States. Several other societies of the same kind sprung into existence within a few years, and in August, 1810, Elkanah Watson, of Berkshire, Mass., was instrumental in getting up the first agricultural fair ever held in America. From that time, efforts in behalf of agriculture received a new impulse, and associations were soon formed in most of the older States. The "American Institute of the City of New York" was incorporated in 1828, and the N. Y. State Agricultural Society commenced its useful career. At the present time, societies or boards of similar character have been incorporated in nearly all the most populous States, besides numerous county societies, all having the same objects in view, making an aggregate of about eight hundred distinct organizations.—*N. Y. Jour. of Com.*

 The human heart revolts against oppression, and is soothed by gentleness, as the waves of the ocean rise in proportion to the violence of the winds and sink with the breeze into mildness and serenity.

AN INSTRUMENT FOR TALLYING.

In looking over our Western exchanges a few days since we noticed an account of an invention which, it seems to us, must come into universal use. Indeed, it is singular that such an instrument was not made before this by a Yankee. It was devised for the tallying of lumber, but (as our Western contemporary, remarking upon it, says) "of course it will count anything that needs counting," and will be most serviceable wherever it is wanted. He further adds:

"It is contained in a metallic box, about the size of a snuff box, with a glass cover, and resembles a large sized pocket compass. There are three indicators, one over the other, pointing to three circles of figures—the first from 1 to 100; the second from 100 to 1000; and third from 1000, to an almost indefinite amount. A small lever, slightly projecting through a groove to the outside, operates it, and lumber can be tallied with it, with the utmost rapidity and absolute certainty."

"We have not, for a long time, seen an invention of more merit, or more likely to come into general use. It seems impossible to commit an error with it, unless by the greatest carelessness, and a cargo of lumber may be tallied by it, and the moment the last board is unloaded, the machine will show the precise amount of the cargo."

The inventor is John W. Arndt, of Green Bay, Wisconsin, a section noted for its lumber trade. The cost of making the invention, with the aid of proper machinery, will be but a trifle, though the cost of the one described was about \$7. The *Green Bay Advocate*, from which we quote, hopes that "the invention will yield a handsome reward to the inventor, whose many fine qualities make him worthy of good fortune."—*Commercial Bulletin.*

FRAUDULANT COTTON PACKING.

Water-Packed Cotton.—Three bales of water-packed cotton were discovered yesterday at the shed of Messrs. F. Lane & Co., Union street. They were shipped to this city from LaGrange, by a cotton-buyer and hence the name of the guilty planter from whose hands they originally came has not yet transpired. As soon as known, however, we shall make it public, in justice to honest and respectable parties, who would otherwise rest under suspicion, and also that the defrauded party may be known, and, if possible, brought to punishment. There are good and sufficient laws existing in Tennessee against this species of swindling, and the reputation of Memphis as a cotton market would seem imperatively to demand that they be put in execution against offenders without delay. The detection of frauds in packing are becoming altogether too frequent for the good credit of Memphis cotton bales abroad.—*Avalanche.*

More Fraud in Packing.—The *Memphis Appeal* says: "Mr. Townsend lately received from White River, Ark., several bales of cotton; all plated with good cotton outside, and filled within with lower qualities. If the whole had been properly sorted and packed, it would have sold at the average of over eight cents a pound; as it was mixed it sold at only six cents. The roguish cotton planter has good reason to believe that 'honesty is the best policy.'

CABBAGE WITH CORN.—Mr. Brooks, of Princeton, at one of the Legislative Agricultural Meetings in Boston, alluded to the practice of planting cabbage among Indian corn. He knew an instance where cabbage was planted in alternate rows with corn, and the cabbage sold for \$150 per acre.

 THOUGH too late for the present season, the following may be of service to our readers hereafter:

CULTIVATION OF IRISH POTATOES.

While recently in conversation with a friend of superior knowledge and ability, as well as of practical experience and information, we gathered some ideas in regard to the cultivation of the Irish Potato, which we believe to be of value. They have so been pronounced by those competent to form a correct opinion, with whom we have since consulted. We will state them, for the information of our readers, briefly, but as clearly as we can.

The basis of the plan is involved in the fact or idea, that the greater the length of the main stem or root that shoots upward from the seed, the greater will be the yield, the potato being found at intervals along the whole length of the said root. How, therefore, is the length of the root to be best obtained. If the seed be planted early, and buried to the desired depth below the surface, it too often rots, the plant never making its appearance. If planted later with less depth, the plants are liable to be killed down by frost, and thereby materially injured. It is proposed to obviate these difficulties in the following way:

Let the seed be planted early in February or in January, if preferred, in trenches, well manured if necessary, of sufficient depth to admit of successive coverings without greatly exceeding the surface. Cover the seed, in the first instance, to the depth of about four or five inches. After a sufficient length of time, and when, upon examination, it is ascertained that the sprout is within about two inches of the ground, cover again to the same depth as at first. When, again, the sprout reaches the same distance from the surface, cover again. After this allow the sprout to come out. In most cases, the danger from killing frost will have passed before the potato has made its appearance above the third covering, and the double object of length of root and escape from frost has been obtained. They may then be cultivated in the usual way.

This system of culture prevails, in substance in the Northern States, where the Irish potato is grown so successfully and to so great an extent. As we remarked above, we think the idea of practical utility, and we recommend our friends whose efforts may have hitherto been unsuccessful in the production of this important vegetable, to give it a trial. Our friend to whom we are indebted for the information, has never failed to make a fair crop when adopting this plan.—*Sunter (S. C.) Watchman.*

ITEMS FOR HOUSE-KEEPERS.—Do everything in its proper time. Keep everything in its place. Always mend clothes before washing.

Alum or vinegar is good to set colors of red, green or yellow.

Sal Soda will bleach very white; one spoonful is enough for a kettle of clothes.

Save your suds for garden and plants, or to harden yards when sandy.

A hot shovel held over varnished furniture, will take out white spots.

Ribbons of any kind should be washed in cold sapsuds and not rinsed.

If your flat irons are rough rub them well with fine salt, and it will make them smooth.

If you are buying a carpet for durability, choose small figures.

Scotch snuff put on the holes where crickets come out, will destroy them.

A gallon of strong ley put in a barrel of hard water, will make it as soft as rain water.

 He that is angry with his just reprobation kindles the fire of the just avenger.

AMERICAN AGRICULTURE.

It is a melancholy truth, and one that reflects much on the skill and foresight of American farmers, that while the wheat crop of England has increased at least fifty per cent in the last century, that of the United States has fallen off in nearly the same proportion. A century ago New England and Delaware raised wheat as an ordinary crop; now a wheat field is a rarity in these States, and they may be considered no longer wheat-producing regions. Portions of New York that formerly produced thirty bushels to the acre now seldom average over eight bushels; and Ohio, new as she is, with her virgin soil, does not average over thirteen bushels to the acre.

If we go on as we have for the past century, from bad to worse in our tillage, the lands in Ohio in half a century from this time will not produce wheat enough to supply our own wants. It is less than that time since Vermont was a large wheat-exporting State; now she does not export a bushel, but imports at least two-thirds of all the flour consumed in that State. Instead of increasing the productiveness of our wheat land, as is done in England, our wheat region is diminished more than one-half, and the productive quality of what is still used has diminished in equal proportion.

This is a practical, matter of fact view of the case, and one that addresses itself seriously to the common sense of the farmer and national economist. Instead of the vain boast that we can feed all Europe from our surplus wheat, we have got to improve our farming or swallow the unpalatable truth that we import our breadstuffs from England.

We talk much of the worn-out lands of Maryland, Virginia, and Carolina; but New York, that has destroyed the productive quality of her soil so that she can get but eight bushels where she formerly got thirty, and Ohio so she gets but thirteen bushels where she formerly got thirty-five, have the same prospect before them. The great question regards the future; the past cannot be recalled nor remedied.

One great source of deterioration in exhausting our soil has been in the manufacture of potash, and the export of it to foreign countries or to our manufactories. In this way our soil has been robbed of an ingredient without which no plant can mature and no cereal grain form. As our forests have disappeared, this source of deterioration must be cut off, but a serious injury has been inflicted, which nothing can cure but the re-furnishing of the potash to the soil. How can it be done? is the great inquiry for our farmers.

The export of our flour has been another source of exhaustion to the soil, in taking away from it the phosphate of lime that is necessary to give plumpness to the kernel.

This exhaustion can be more easily remedied by the application of bone dust. For many years the English farmers have carried on a large traffic in old bones, paying five dollars a ton for them. This has stimulated many to gather them up; and even to rob the battle-fields of Europe of the bones of their brave defenders to enrich the wheat fields of England. By this course the fields of England have been made more productive, while the countries from which the bones are taken have been permanently injured by their loss.

The English, too, have sent to every island of South America to procure *nitre*, in the form of guano, to fertilize their fields, while the Americans not only import little, but negligently waste that which Nature forces on them.—*Ohio Farmer.*

 Hopes and cures, anxieties and tears, divide our life. Would you be free from these anxieties? think every day will be your last, and then the succeeding hours will be the more welcome, because unexpected.

SOUTHERN CULTIVATOR.



N. ORB. SO. N.Y.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

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NO. 6.

WILLIAM S. JONES, Publisher.

D. REDMOND, Editor.

See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—After the first hoeing, give your Corn a top-dressing of gypsum, ashes and salt—10 parts of the first, 4 of the second, and 1 of salt. It will be a great benefit in a dry season, and no injury at any time Try it, if possible. Work your young Corn as often as possible with a cultivator or horse hoe, giving the roots a deep mellow bed in which to extend themselves, and leaving the surface level and well pulverized.

Plant plenty of Cow Peas, using plaster as a top-dressing, after they are well up. It will act like magic on land deficient in lime. Plant, also, the Chinese Prolific Pea; which will yet give you a good yield, with favorable "seasons." This Pea is exceedingly valuable as a fertilizer, and produces a large quantity of hay, when sown broad-cast, on good land. Plant, also, plenty of Pumpkins among your corn or in a separate patch. Milch cows and hogs relish them greatly, and they are quite fattening when boiled up with meal or bran.

Cotton will need constant and unremitting attention, during the present month. Scrape and mould the plant as soon as possible; keep the weeds down, and the ground in a state of fine "tilth."

Sow, in the drill, in your richest land, large quantities of Chinese Sugar Cane and common Corn, for forage. A farmer has rarely too much rough provender; it is useful for soiling as well as for curing to hay.

Sweet Potatoes should be transplanted now as soon as possible. Dip the roots in a thick batter, made by stirring fine black leaf-mould and scrapings from the cow-pen into water—set the plants pretty deep, and shade the ground around them with a handful of pine straw and they will grow off finely, even in dry weather. Just before sundown is the best time for the planting of "draws."

Wheat, Oats, and Corn Fodder (from the drill) may now be cut and stacked up carefully on a platform of rails raised several inches above ground; or, (which is still better) put under cover immediately.

THE KITCHEN GARDEN.—Little can be done the present month, in the garden, with the exception of mulching, weeding and watering. We regard the first operation (mulching) as of paramount importance in this climate, and have spoken of it so often that repetition seems unnecessary. Mulch everything—trees, shrubs, vines, and even vegetables—covering the surface of the earth, as far as the roots extend, with 4 or 5 inches of pine straw, chip mould, spent tan, sawdust, or forest leaves—and you will find that trees and plants thus treated will grow much faster, and receive little or no check from the long-continued drouths of mid-summer. Water should now be freely and regularly applied to all your growing vegetables, *through the mulching*, as heretofore directed—leaving no moisture exposed on the surface to the baking rays of the sun. This is an excellent time to attack the weeds, and you must show them no quarter! Cut them down and let them die on the surface; or dig them up, and burn them, root, branch and seed. Plant Snap Beans and scatter a little short litter or saw-dust on the ground after having covered the seed. This will make them come up.

Irish Potatoes can be planted and heavily mulched; they will give a fair crop in October. Plant Watermelons for a succession. During the latter part of this month, Cabbage and Brocoli plants for fall and winter use may be set out.

Seeds of Cabbage, Cauliflower, Celery, &c, may be sown under low arbors, made of brush or pine tops, in order to shelter them from the fierce rays of the sun. Water often, until the plants are well up, when a little liquid manure may be used alternately with the water, from time to time. Plant a full crop of Okra, without delay (Dwarf Okra is best.) Plant Peas, Sweet Corn and Snap Beans, for a succession. Transplant Tomatoes and early Celery, &c., and prick out Celery, Cauliflower and Brocoli. Pinch off the leading shoots of your early Tomatoes, Lima Beans, Melons and Cucumbers, if you want the fruit to set early; and give the plants liquid manure if you desire large specimens. If the green worm is troubling your fine Muskmelons, place the fruit on a brick, when half grown. Sow Tomatoes for a late crop, they will come in when the first is gone. Sow Rutabaga Tur-

nip seed and transplant them like winter cabbages, in rows 2 feet apart and 18 inches apart in the row. The white and yellow summer Radish must now be sown. Transplant Onions and Leeks, if not done last month, whenever the season suits. Also, transplant Beets, where they stand too thick in the seed bed.

Strawberry Beds must be kept free from weeds, well mulched with leaves or chopped pine-straw, and freely watered in dry weather. If you desire fruit, cut off all the runners as fast as they appear, and keep the ground cool and moist. But if you wish to increase your plants, the mulching may be dispensed with (except immediately around the plants as directed heretofore) and the surface must be kept clean, and well worked with a pronged hoe.

THE ORCHARD AND FRUIT GARDEN.—Where the frost has not saved you the trouble, by cutting off a portion of your fruit, thin it from one-third to one half, if the branches are heavily laden, and the remainder will be enough larger and finer to pay for the trouble. Peaches, Plums, Nectarines, Apricots, &c., may now be budded; the tree must be trained low and branching, and instead of tall, slender and "spindling." Mulch all young trees set out last spring, and give them a copious watering occasionally, if the weather is very dry. Turn your young "shoots" into the orchard to devour fallen fruit, and encourage them to "root," or loosen up the earth by scattering a handful of corn to them occasionally underneath the trees. Large hogs are frequently destructive to orchards, tearing and mutilating the branches in their efforts to obtain the fruit, even when the ground is thickly covered with it.

THE FLOWER GARDEN.—Some hardy annual seeds may yet be sown, but it is rather late. If you do not wish to take up your bulbous roots, (by which method they often are lost in this climate unless properly attended to) give them a heavy mulching and let them stand in the ground until September, when they may be taken up, divided, and planted again. Whenever Dahlias stop blooming, cut them down to the ground, and give them a good watering and a heavy mulch; they will soon sprout and bloom anew. Apply liquid manure occasionally to all your choice flowers. Roses should now be budded and layered—fumigate with tobacco smoke to destroy the *Aphis* or green fly upon the Rose and other plants. Gather ripe flower seeds in dry weather. Use water freely among your flowers whenever it is necessary, and do not disappoint the plants and yourself by giving them a little sprinkling, but give them a thorough soaking whenever you do give them a watering. Rain water is, by far, the best.

ROGIN.—The New Orleans Chamber of Commerce have passed the following resolutions:

Resolved, That the President of this Chamber be and is hereby requested to communicate to the Chambers of Commerce of the principal cities in the United States, as also to those of Liverpool and London, that the standard weight "of a barrel of rosin," of all grades, has been fixed by this body at two hundred and eighty pounds gross.

THE LOW PRICE OF LAND AT THE SOUTH— Its Cause and Remedy.

[Continued from our May number, page 133.]

In the March number of the *South Countryman*, this subject was treated negatively. It was then shown that the low value of landed estates at the South, was not owing to the cheap fresh lands at the West, to slavery, to defective climate, to sparseness of population, or a deficiency in the value of our products.

Affirmatively, we conceive the comparative depreciation of our landed estate, to be owing to our Defective System of Agriculture.

1st. This system is such, that the planter or farmer scarcely considers his land as a part of his permanent investment. He buys a wagon, and uses it until it is worn out, and then throws it away. He buys a plow or hoe, and treats both in the same way. He buys land, uses it until it is worn out, and then sells it, as he sells his scrap-iron, for whatever it will bring. He regards his land rather as a part of his expenses, than part of his investment. It is with him, as it were perishable property. It is something to be worn out, not improved. The period of its endurance is, therefore, estimated in the original purchase, and the price is regulated accordingly. If it be very rich, level land, that will last a number of years, the purchaser will pay a good price for it. But if it be rolling land, as is the great bulk of the interior country of the Southern States, he considers how much of the tract is washed away or worn out, how long the fresh land will last, how much is too broken for cultivation; and in view of these points determines the value of the property. Of course he places a low estimate upon it. And this low estimate will continue until the holders of landed property learn to consider it as a part of their estate, which is capable of an annual improvement in value, instead of being necessarily submitted to an annual deterioration. We recollect a short time since, two large land owners, sensible men in the main, concurring in opinion, that it was impossible to raise and support a large family in Georgia, from farm, without wearing it out in the process. These gentlemen had killed their orthodox quota of acres in middle Georgia, and had commenced the same murderous process in Cherokee. We quite agree with them, with the condition that they continued their present system of farming. No land upon the face of the earth could stand it. It must be good land to last long enough to raise a family upon it.

2d. Our system of agriculture, is such that a very large proportion of our landed estate yields us no annual return. A considerable amount is in woodland, yielding nothing except a supply of rails and fuel. If the farmer would consider the amount of money he has locked up in woodland, and then make a calculation (counting the interest on this dead capital) of what his rails cost him, it would alarm him, and he would very soon begin to make inquiries about Osage Orange, Cherokee Rose, Thorn, or, better than all, Locust seed, for hedges.

A large number of acres, on almost every farm in the older parts of Georgia are worn out, and at rest; of course paying no interest. The only paying part of the farm is that which is under the plow. The interest on the land which the farmer does not cultivate, must be charged to that which he does cultivate. This brings down the value of the whole property to a very low figure. This point is capable of great amplification, and indeed deserves it. But the necessity of condensing much into a small space, prevents us from further remarks, save to ask the land holder to take out his pencil and paper and work out the figures which these few thoughts will naturally suggest to him.

3d. Our system of agriculture is such that it allows to

landed property no value independent of the labor bestowed upon it. The negro is the investment rather than the land. We must buy a mule for the negro to plow with; we must buy land for the negro to put the plow into; we must buy a wagon for the negro to haul home his crop with. The mule, the land and the plow are the incidents—the negro is the essential. The value of the negro is instantly affected by a change in the price of cotton, while the value of the land which grows the cotton, is comparatively unaffected. It is an extraordinary anomaly that perishable labor should take precedence of imperishable land. No one who has read our article in the March No. of this journal, will think uninclined to deprecate slave labor. After varied observation, we have no hesitation in giving it a preference over any other form of labor, as being most agreeable, humane, constant, economical and profitable. But it may be misused. We may give it a false position, and thereby lose much of its benefits. We consider the relation of labor to land at the South as an instance of the falsity of position.

We have heard young men on the sea coast of Georgia and South Carolina, giving it as a reason for their entering a profession that while they had a large body of land, they owned only twenty or thirty negroes, and it would be impossible to make a support with so small a force—observe, it was not the number of acres but the number of hands which constituted the deficiency. We have asked, how do the rest of the world manage, who have no negroes? The reply was, that "their system is different from ours—that ours required a great deal of labor." Precisely, and therein it is defective, and until that defect be cured, however high labor may be, land will continue to be a comparative drug in the market. The operation of the cause we are considering, is varied and disastrous as to effect upon the value of land. A lady, left a widow and with a large landed estate, finds the responsibilities of her position too onerous, and a change is made into stock which will pay a moderate interest, without trouble to her. A guardian, administrator, or trustee, having an estate thrown into his hands for management, and fearing the complicated responsibility of a plantation, in addition to his own private affairs, invests also, in stocks, as being equally safe and giving less trouble. The effect of every such preference upon the market price of land must be very great. We contend, and hope to be able to show, that it is possible to give land a value independent of any county or complicated annual labor to be bestowed upon it.

4th. Our system of agriculture includes a succession of crops, of a most exhausting, or otherwise injurious character. In one respect, cotton is among the least exhausting, considering the amount of vegetable matter it returns to the soil. But wherever land is hilly, the clean culture necessary for this plant, must necessarily induce the washing of the soil. The same objection with other injurious results, is attendant upon the cultivation of corn. Our farmers talk of resting their lands by sowing them down with small grain. The English farmer would ask, "If you will rest, pray, what do you call work?" The severest crop to which he submits his land, is a crop of small grain, always manured and never followed by another small grain crop until an ameliorating crop has intervened. The lands of England were once exhausted and comparatively valueless. It is by a system which annually improves them, that they have attained their present enormous value. The adoption of an improving system gives to landed property an advantage, which few other kinds of property possess. A share in a bank or Railroad, costing \$100, may occasionally run up a few dollars above par, while it continues to pay the owner a fair dividend. A piece of ground, originally costing \$100 may, improved management (where it is general and

has given to landed estate its true value,) pay annually, a good interest, increase in saleable value, and perhaps, in a few years sell for enough to buy ten of the Bank or Railroad shares, one of which was, originally, its equal in value.

5th. Our crops are not only very exhausting, but they require an amount of labor not known elsewhere. Our farmers and planters generally hold large tracts of land. Much of this, as we have seen, is annually idle and unproductive. In the cultivation of that portion in use, we use less land and more labor, perhaps than any other intelligent agricultural population, whatever. The average of labor (steady labor) on a European farm in high culture, will, perhaps, not exceed two hands to the hundred acres. This will include pasture, meadow and plowed land, but it is all annually productive—that which is not plowed yielding a return, including interest and expenses quite equal to that which is plowed. There is no dead capital in the case.

In the Northern States of this country, the average of labor to the number of productive acres, is perhaps still less. It may be of interest to offer a few instances taken from the transactions of the New York Agricultural Society, the details of which were given under oath. These instances will show that at the South we have no practical idea of the amount of income which may be derived from a given number of acres of land with a small amount of labor.

J. V. Grove's farm, 234 acres, of which 37 are woods. Gross sales \$6,752.89; amount paid for labor, besides the farmer's own labor, \$526.15—at the usual rate of wages, this would about pay three hands, yet there are cash sales of nearly \$7000.

J. Westfall's farm, 202 acres. Gross sales \$4,973.14. Paid for labor, \$663. This includes the labor of the farmer at \$20 per month, and all the labor expended in improvements, manuring, &c.

W. Holmes' farm, 185 acres. Gross receipts, \$6,720. Paid for labor, \$650, including labor of the farmer—equal to between three and four hands.

L. D. Clift's farm, 160 acres. Gross sales, \$6,344. Two regular hands, including extra help, paid for labor \$495.

R. J. Swan's farm, 325 acres. Gross sales, \$10,771. Paid for labor \$900.

We might multiply these instances from the invaluable volumes before us. They are indeed exceptional cases, being prize farms, but they illustrate the points at which we are aiming, the proportion of labor in the management of productive land. It is to be borne in mind, that in offering these farms for premiums, it was necessary in the specification of details, to mention the amount of manure, as no farm would receive a premium which was not under a system of management which would improve it annually. The returns mentioned by these contestants indicate an average of from thirty to forty two-horse wagon loads of manure to each acre of plowed land. Under such treatment, the older the land is the better it becomes—thus not only the same revenue of the farmer but his capital in land annually increases. In entering a county represented by such farming, a purchaser will not enquire as he would at the South, "How long will this land last," but, "how long has it been improved?" The difference in these natural questions in the two sections of country, offers a key to the difference in the value of land.

We cannot forbear giving another instance originally published in the *Valley Farmer*, of the farm of a Mr. Gentry, of Missouri. The instances previously given are on a small scale. This is on a large, and on this account may be more instructive to our large planters. This farm consists of 3500 acres under fence, and mostly in di-

visions of forty acres; 1400 acres in blue grass, 700 in clover and timothy meadow, 360 in corn, 160 in oats, 20 acres in millet, and the rest in woods pasture. There are 30 miles of fence, mostly rails. The farm force consists of twelve grown hands and six boys. Gross receipts from the farm \$27,000. This return gives an annual gross income of eight dollars from every acre, including woods—it gives \$1500 to each hand, man and boy, and allows about 200 acres to each hand.

Suppose a person hesitating between the purchase of Mr. Gentry's farm and one in Georgia. We might suppose him to say, "If I buy the Missouri farm, it is true, I must buy stock to put upon it. But if I buy the Georgia farm it will require a large gang of negroes to work 3500 acres according to the common plan—this will cost a great sum of money—on the whole, I will buy in Georgia, but the cost of this amount of labor must come out of the lands. And besides, I must consider how long this rolling land in Georgia will last in the cultivation of cotton and corn, and as it is perishable property, I must regulate my price accordingly." It is thus, that our landed property is depreciated in value.

The causes which have been mentioned, we believe, are those which most injuriously affect the value of Southern lands. We have only presented heads of thoughts, for each point would require extended remarks fully to illustrate it. Our defective system of agriculture has been stated generally, as the cause of the result we are considering, and as particulars under this general head, we have enumerated the facts, that our farmers buy land as property to be worn out, not improved—that a large proportion of our landed property yields no annual income—that our system allows no value to land independent of costly labor bestowed upon it—that our succession of crops is of a most exhausting nature and lastly, that in their cultivation they require an amount of labor, not known elsewhere in intelligent agriculture.

We should deeply regret it, if any person suppose that these defects in Southern Agriculture are pointed out in a presumptuous or captious spirit. The subject we are discussing, more gravely affects the pecuniary interests of Southern land holders than any other which can be presented for their consideration. If there be a process by which their lands may be brought up to the standard of Northern value, the lands which thousands now own, and which are of little worth, would bring to their children, affluence. We believe that there is no valid reason why this result may follow, and in a comparatively short period.

It involves no censure upon the men who established the present order of agricultural affairs to point out its present defects. They were pioneers, for the most part men of limited means, encountering the forest, prevented by necessity from using improved farming tools, raising stock without difficulty in the range, and only for their own consumption as they were unsaleable, where all were producers, and compelled to raise those crops which were easy of transportation for long distances by wagon, and which would command cash on their arrival in market. But all this has been changed. That which was their misfortune, may be our fault. Our Railroads and rivers enables us now to carry to market, and to sell every thing which men eat and wear. And we shall be greatly reprehensible if we do not improve this advantage to the improvement of our husbandry.

This thought leads to the proper remedy for the low price of our land. That remedy is the incorporation into our system of agriculture, of a feature by which crops, for the improvement of the soil directly and indirectly, shall be as regularly cultivated as crops for sale. Whether these crops shall be returned after having passed through the bowels of farm stock, is a separate question. We

wish to see it regarded as much a part of the farmer's innocent boast, that he has improved so many acres of land as that he has sold so many bags of cotton.

To do this we must raise horses, mules, cattle, hogs and sheep, for our own consumption, and for the supply of the market. Wool is as ready of sale as cotton. It is cheaper in our climate, and with proper summer and winter pastures to raise a pound of merino wool worth fifty cents in New York, than it to raise a pound of cotton, worth 12 cents in the same market. The cause of this is obvious. The increase of a flock of sheep, well managed covers its expenses and the wool is clear. There is no process by which we can get cotton clear. Two negro men, with proper enclosures and pastures, will take care of 1,000 Merino sheep. It is estimated by competent judges, that the droppings of 1,000 sheep on an acre of ground, for one night, are equal to 200 pounds of guano. We know what guano costs, and by counting 365 nights, we may estimate the value of 1,000 sheep, in the improvement of 365 acres of land for one year. The cheapest way by which we can raise sufficient stock to keep our capital in land always increasing, is by the cultivation of the artificial grasses. In their cultivation it is only the first cost which tells—afterwards they work for us without labor on our part.

We would begin with the woodland and woods pastures. An English park is nothing but a woods pasture, and it pays an annual interest on a heavy investment. We have in Georgia upwards of thirty millions of acres of unimproved lands to six millions enclosed and improved. Much of this land is perhaps hopelessly, irrecoverable, or at least for many years. But a vast amount of it can be used for the purpose suggested. When this is done, what an addition to the value of the lands, the wealth of the State and the comfort of the people! What an exhaustless means of improving lands injured by scouring cultivation!

A farmer has \$1200 which he desires to invest—he is doubtful whether to buy a negro man or more land. Suppose he does neither, but expends this amount in the purchase of some one of the concentrated manures, applies it to his wheat land in the fall and sows clover with it in the manner suggested in another column of this journal. If his wheat is successful, he will get back (Mr. David Dickson tells us) one hundred per cent. on his outlay for manures—if his clover is successful, he will be able to raise stock enough, hogs especially, to prevent the necessity of a future outlay for manure. The land which before this process commenced was not worth perhaps five dollars an acre, the farmer would be very sorry to sell for fifty dollars an acre, after a good clover soil has been formed upon it. It will more than pay him the interest of that sum annually without labor, and when the sod is turned under for cotton, corn or wheat, the results will amaze him. A slight dressing of manure on land deeply plowed, (a dressing on the surface,) will cause clover and the grasses to take hold and flourish, where their growth was otherwise impracticable.

In one word, the remedy for the low price of our landed estate is to adopt a system which will annually improve the land.

Our object in this article is to introduce the right kind of thought into our Agriculture. We do not mean to say that our farmers do not think—they do think, and some of them intensely—but the subject of these thoughts is, too often, solely, "How shall we make more cotton?" We would append to this inquiry an addition, "How shall we make more cotton while we improve our lands?" We believe both these ends are attainable.

We propose no violent innovations. We would not diminish the amount of cotton and corn produced, but would increase it. We wish to see this increased pro-

duction from a smaller area of land by high manuring and skillful cultivation; we wish to see our now useless forests paying the owner, as the park does the Englishman, feeding his flocks and giving fertility to his arable lands. We wish to see the arable land, when made rich and generously repaying its liberal owner in the process, afterward allowed that repose from its toils, which God has ordained that all organised nature must be allowed, in order that it may properly perform its functions.

The views presented are not novelties. They are the result of observation upon the practice of others, where landed estate gives fortune, and a contrast with our own practice where landed estate is sometimes an encumbrance rather than a source of wealth.

Will the farmer allow something of the following train of thoughts to pass through his mind? "I own 500 acres of land—I can hardly support my family upon it. I might sell it for \$2,500. If it was in some places, I could sell it for \$50,000 or rent it for \$500 a year. What is the reason of this difference? Can I remedy it?" A thoughtful mind turned to these inquiries will ascertain facts to the benefit of the thinker and the public. The improved practice of no one man, can indeed, materially affect the price of landed estate in a great extent of country. But it can add to his income. It will affect favorably the interest of his children, and, as others follow the example, the influence extends, and greatly increased products, and greatly enhanced value of land is the result of that influence. When an agricultural practice which has given a large price to land elsewhere becomes general at the South, there is no reason why land at the South may not be as valuable as in any other portion of the globe.—*South Countryman.*

GRASS GROWING--COTTON PLANTING--RE- Opening of the Slave Trade, &c.

EDITOR SOUTHERN CULTIVATOR—Very valuable articles have appeared in the *Southern Cultivator* on the culture of grasses, and on raising sheep, cattle and hogs. These hints are useful and appropriate for the Northern section of the Carolinas, Georgia, Alabama, Mississippi, Louisiana and Texas, although south-western Texas embraces a considerable portion of prairie land well adapted for grazing; but in Middle Georgia, and throughout the cotton-growing States in the same parallel, where the cultivation of cotton is the chief product, no time can be devoted for any other purpose. To talk of growing grasses to cotton planters, except as a matter of experiment, is altogether useless—their business is to *kill grass*. We wear out land and go further West in search of virgin soil at a low price, and grow cotton. The cultivation of cotton requires the entire force of the planter year in and year out, allowing scarcely time to collect manure and prepare the land for cultivation by deep plowing, &c. To grow cotton is a separate and distinct occupation from growing grass, hay, raising sheep and other stock. The two systems cannot be conducted to advantage at the same time and on the same place. As long as fresh cotton land can be had, the process of clearing and wearing out the soil will be continued, because this is the most ready way to accumulate money in this country *at present*—cotton planters will pursue this course as long as it is possible; ready, present profit is what they go for, and, until the land is all brought under cultivation and exhausted, no permanent improvement can be expected! As long as the virgin soil is plenty and cheap, the worn-out lands (except in particular localities) will probably remain at a very low figure, say five dollars per acre. The exceptions are these: Sea Island cotton lands are comparatively high, because they are confined within very narrow limits, extending only from the vicinity of Charleston to Cumberland Island in

Georgia. Advancing southerly into Florida, the staple of the cotton becomes more wooly; hence the necessary improvement and extra value of the Sea Island cotton lands. Again, the rice lands are chiefly located on tide-water swamps; and these, too, are very limited, besides they do not require the application of manure, as the periodical flooding of the fields produces an annual renovation of the soil—hence these lands are also more valuable than any others in the Southern States, while the million acres of up-country, worn out lands are comparatively valueless.

In reference to the re-opening of the slave trade, it is much easier said than accomplished. It may be performed by smuggling *in*, just as the Abolitionists smuggle the fugitives *out*. All the arguments of the South may not prevail with the North, to repeal the law prohibiting the importation of slaves; and when the question is brought before Congress, if it ever is, it will be the most exciting question ever debated before that body, and it will shake the very foundations of the Union. But if we actually need more slaves, and if it is profitable to have more of them, which is very questionable, we can import apprentices just as Great Britain and France are doing—in this there will be no infraction of the common law, nor of any statute law. Good and salutary laws could be enacted by the several States, in allowing apprentices to be imported, under indentures for seven years; conditioned, that at the end of the first term of apprenticeship, the apprentice should be hired out for another term of seven years, the price of hire being paid into the hands of the Judges of the Court of Ordinary or Inferior Court, to be kept for the future use of the apprentice, and so continue to hire out for seven years, until the apprentice arrives to the age of sixty; or, previous to that time, should the apprentice become permanently diseased, or otherwise unable to work, then the money collected should be paid out monthly for the sustenance of such apprentice. But with all these precautions, there would be a large number of paupers thrown on the country.

Let us now take into consideration whether the planter would be benefited or not by the importation or introduction of one million more African laborers.

There are now in the Southern States, in round numbers, three million five hundred thousand slaves, valued at an average of \$500 each, gives \$1,750,000,000 Producing, in cotton alone, more than 3,500,000 bales, at \$50 each, gives \$175,000,000 or ten per cent. on the capital employed, exclusive of the land—the annual increase of the negroes may be set off against the land and expenses of cultivation.

Then, if we import one million more slaves, this additional force, in less than twenty years, would increase the crop of cotton to probably more than 4,500,000 bales. This increase of production would certainly reduce the price to \$30 per bale, giving only \$1,350,000,000 So that with a larger amount of cotton grown, and more slaves on hand, the planter would find himself with less money, his income considerably reduced, and his fine *virgin soil worn out*. This is no imaginary theory—it has been proven in former times, and will be proved again, whenever the production of cotton exceeds the demands of consumption. By this state of things, however, the manufacturer, ship-owner, merchant and mechanic would be benefitted, at the expense of the planter.

MERCATOR.

 In whatever shape evil comes, we are apt to exclaim, with Hamlet, "take any shape but that."

 If a man fails to the amount of a million, it is all right; but let him fail to the amount of his board bill, and he is a scoundrel.

**BERMUDA GRASS--LETTER FROM DR.
Philips.**

EDITOR SOUTHERN CULTIVATOR—Yours of the 9th, covering a note from Mr. Edrington, of Sabine Town, Texas, with a specimen of grass, I received to day, and cheerfully respond.

Without the seed stalk, it is not safe to pronounce as to the specimen you sent me. The leaf, though dried, has every appearance of Bermuda, the root is rather short-jointed, yet I am disposed to think it Bermuda. I know nothing of varieties of it, that there may be, I would not deny, but I would as soon expect varieties of Blue or orchard grass, of Timothy or of Herd's grass. That there may be a grass called Bermuda I know, and which our friend, Broomsedge, was convinced by our own botanist, Dr. Bachman. The present specimen puts me in mind of Broomsedge's specimen. The seed stalk would settle it. And none more able to decide than Dr. John Bachman, of Charleston, S. C.

I know now Bermuda easy to kill; on some lands it can easily be killed by plow and harrow in summer, and I have known it destroyed on thin red land by plowing and freezing in winter. I advise all who plant, to put the pasture where never wanted for cultivation. It is the best grass, so far as we know, in the South, that a Wise Master has given to fallen man. On good land it will feed, acre for acre, from April to October, acre per acre, if planted in corn, blue grass or oats, anything; and how long it will last none knoweth. Why make such a to do about eradicating it? Why not quarrel with corn because when thinning out corn, lazy negroes and a careless master, it has to be thinned again?—negroes shave off the stalk and the plant continues to grow. Put out 10, or 50 or 100 acres, and hedge it in with anything that will shade the earth at bottom, and I will guarantee that the Bermuda passes not under the hedge. I believe blackberries, or locusts, or anything that gives a low shade, will utterly destroy it in two or three years after the land is well shaded, and for this reason, I have in my yard two cedar trees planted when two feet high with Bermuda, the Bermuda soon covered the land, cedars grew on; now these are say 20 feet high, limbs cover, say 20 feet, and earth clean under them. I will try 10 acres of oats this fall on a thicke set Bermuda patch; this day I saw a part turned over for cotton, with turf fully 10 in. width, and 20 to 30 inches long, pretty tight pull for two mules. In August or September I will sow among the cotton two bushels of oats per acre, land rich, and had I the Red Ripper or Tory Pea I would sow down three pecks of it at the same time, picking the cotton will cover oats and peas, oats will be vegetating in fall rains and peas in the spring—have done it, again and again—no plowing, the earth being clear all summer.

The first time I ever had 400 lbs. picked by a hand was on land as fully set in Bermuda as land gets to be, and I made 2000 lbs. per acre. In July, land well set in crab grass is more difficult to work than in Bermuda.

Yours truly,

M. W. PHILIPS.

Edwards, Miss., April 22, 1859.

TO DESTROY SASSAFRAS.

EDITOR SOUTHERN CULTIVATOR—In the April number of the *Cultivator* I saw an inquiry, how to destroy Sassafras sprouts. I only give my information in the case by experience, viz: Sprout them up thoroughly at the full moon, in August. The second time you have few to contend with. If you should not finally destroy them at the second operation, try the third. I have never known it to fail.

JAMES BETTS.

Prairie-Mouth, Miss., April, 1859.

PLOWS AND PLOWING--TEST OF DRAFT, &c.

EDITOR SOUTHERN CULTIVATOR—The plow I believe is generally admitted to be the most important among agricultural implements. Though first fashioned by nature's primitive growth, it was immediately elevated to a high position among farming utensils, and has, up to the present time, been an object of deep study and frequent improvement, until we have in use a great variety of plows, differing from each other in form and shape as widely as they all do from the crooked stick used by the ancients.

That the inventive genius of man will ever adapt to this implement some form rendering it perfect is a question not easily solved in this age of improvement, and especially when we consider that different soils require plows of different forms; but that from among the great variety of plows in general use there is some of one them capable of rendering the most general satisfaction to practical cultivators, I deem ascertainable by scientific investigations.

These considerations induced several leading planters of this vicinity to institute a test by comparison, consequently the 31st of March was selected as the day of trial.

The plows engaged in the trial were Brinly's Sod, No. 2; Brinly's Breaking-up, No. 2; Calhoun, No. 1; and Hall & Spere, No. 2.

The plows were successively subjected to a test of a dynamometer (an instrument used for accurately ascertaining the amount of draft applied.)

The following is the report of the committee appointed to superintend the trial which took place in the nurseries of Robinson & Felt, Crystal Springs, Miss.:

| Names of Plows. | Draft by Dynamometer. | Bourometer. | Width of Furrow. | Depth of Furrow. | Width of Section of Furrow. | Remarks. |
|----------------------------------|-----------------------|-------------|------------------|------------------|---|----------|
| Brinly's Sod, No. 2 | 336 in | 6½ in. | 9 in | 58½ in | Furrow clean well laid over and soil pulverized. | |
| Brinly's Breaking-up, No. 2..... | 350 " | 9 " | 10 " | 90 " | Furrow nearly as well laid, clean, and free from clods. | |
| Calhoun, No. 1.... | 448 " | 6 " | 9 " | 54 " | Furrow not well cleaned, and soil left in clods | |
| Hall & Spere, No. 2..... | 623 " | 7 " | 7½ " | 53½ " | Furrow very poorly cleaned, not well laid up, and soil packed in clods. | |

JOHN FATHERREE,
JOHN M. BARNES,
G. W. GILMORE,
S. T. MOORE,
J. W. FELT,
Committee.

The soil in which the above plows were tested consisted of a loam of about 4 1-2 inches, resting on a strata of stiff clay, probably never before penetrated by the plow.

The land had not been broken up since last fall, was comparatively free from weeds or trash, and sufficiently moist to be in good plowing condition. In consequence of the incessant winter and spring rains, the soil was rather firm, though not stiff or adhesive, *above the clay subsoil*.

The plows were in good order, having been sufficiently used to polish their mould-boards. The two Brinly plows were made of steel, Calhoun had a steel point, and Hall & Spere's consisted of iron.

By examining the above report it will be seen the Brinly Breaking-up plow performs almost double the work that the Hall & Spere does, and with nearly one-half the draft.

This great saving of animal labor I deem sufficient to recommend it to all economical planters. There is however, a much greater difference in the manner in which the Brinly and Hall & Spere perform the work: the one loosening and pulverizing the soil, leaving it as much broken up as though it had been harrowed, while the other leaves the soil in large and hard clods.

I am of the opinion that plows requiring a great force to propel them generally leave more or less clods, admitting the land to be in good plowing condition and containing from 40 to 60 per cent. of clay.

The nearer this implement approaches to the wedge shape, the less is the friction and the less is the draft required.

If the front part of the mould board is too perpendicular, and the lower portion running too flat upon the bottom of the furrow, it does not lift and loosen or approach the soil as gradually as if it were more the form of a true circle, consequently requires not only more draft to propel it, but by forcing the particles of earth together, expels the air and leaves the soil in clods. If we consider the importance of exposing as much as possible the surface of the earth to the oxydizing influence of the atmosphere, we will more readily see the importance of having a plow which leaves the soil pulverized.

As the Hall & Spere plow stands very high in the estimation of many planters, also to exhibit more fully the extent to which it is excelled by the Brinly plow, I will view this question in a little different light.

If 350 lbs. draft will lift and turn over 90 square inches of soil with the Brinly plow, 117 lbs., or one-third of 350 lbs., will lift and turn over one-third as much soil, or 30 inches.

If this 117 lbs. draft is applied to the Calhoun plow it will lift and turn over only 14 9-10 square inches, and if it is applied to the Hall & Spere it will invert only 9 9-10 square inches of soil! Thus we see one plow inverting 30 and another 9 9-10 square inches of earth with the same amount of draft!

By referring to the report of the committee, it will be seen the Brinly plow takes a furrow slice ten inches in width, while that of Hall & Spere is only seven and one-half inches in width.

Let us consider the effect this apparently small difference of width in the furrow exerts upon the amount of labor requisite to plow an acre of land with the different implements.

If a plow takes a furrow slice 7 1-2 inches in width, the distance travelled while plowing one acre of land is 13 1-2 miles, which, calculating that the team travels at the rate of 18 miles per day, will admit of one plow turning over 1 3-8th parts of an acre per day.

If the furrow slice is ten inches in width, the team will have to travel only 9 9 10 miles while plowing an acre of land, and will admit of one plow turning over 1 4-5th acres per day at the above speed.

Without passing any remarks upon the difference in the depth of furrow made by the different plows, I will leave it for the reader to decide which is the cheapest, all things considered, a two-horse steel Brinly, or a two-horse iron Hall & Spere plow.

Yours, very respectful y,

J. W. FELT.

"How blest the former's simple life—

How pure the joy it yields—

Free from the world's tempestuous strife,
Free'mid the scented fields"

 Human virtue, like the dying dolphin, exhibits its most beautiful colors in distress.

HOW TO CURE STAMMERING.

Dear Doctor:—Will you or some of your experienced subscribers or correspondents inform the writer of some method by which children, who are subject to stammering, may be relieved from this impediment. I have, in the school of which I have charge, a small girl of about ten years who is indeed in a most pitiable condition, and whom I feel it my duty to try and relieve. Her difficulty is not so apparent in conversation as in recitations, and on some days greater than others. She is a promising little girl, and I am inclined to think, if the proper means early used, she may be cured.

C. W. SWARTZ.

Marlboro, Ohio, Dec. 4.

Stammering may be cured in all persons having perfect organs of speech, and who are of sound mind. The last is indispensable, in order that they may understand the rule, and have force of will to execute it on the rebellious organs. Success is more certain in adult persons than in children, for the season that it requires care and close attention for a while to fully break up the habit. We have seen men and women cured instantly, but in most cases a little time is necessary. The plan we would recommend is a simple one, and may be thus presented:

Take a phrase, or number of words, and utter them while keeping time with the index finger, bringing it down on the knee for each syllable, distinctly pronouncing the syllables the while with a full round voice. The mind is thus withdrawn from the action of the vocal organs, and placed on time keeping, and the nervous spasm of the organs is obviated. Take an example:

Slut-ter-ing and stam-mer-ing can be cur-ed.

Now, at the moment the attempt is made to utter the first syllable—stut—let the finger come down with force; and then a "beat" accompanies each syllable in a word or sentence. It will not be necessary to continue this process longer to accustom the mind to it; but it should be continued so long as the tongue falters at any word.

This may, perhaps, serve to show our meaning. As we have intimated, children are not relieved so readily as grown up people, on account of the difficulty of securing and retaining their attention. Sometimes, too, the finger or hand of a child will take on the faltering and stammering of the tongue, and it will be impossible to secure a regular "beat," and finally it will only follow the utterance of a syllable, instead of being concurrent with it. When this occurs, no further attempt need be made to enforce the rule, as it would be useless.

It is not easy to present successfully in words a lesson on this subject—the living teacher would be better—but as we are often written to in regard to it, we throw out the above for the use of such as may need the directions it contains.—*Pittsburg Advocate.*

THE "LEARNED PROFESSIONS."—This itching of young men for the learned professions is a great evil in the land, and should be discouraged by all who have an influence to be felt in the creation of public opinion and direction of the economical systems of society. Let parents look closer to the welfare of their sons, and instead of qualifying them for professional loafers and drones in the industrial hive, place them in some one of the thousand active employments that will prove productive to themselves and useful to their country. The day has passed when the professions were considered alone respectable; and a man's position in society now depends rather upon his moral worth and intelligence, and the degree of excellence he has attained in his calling, than upon the name which the latter may happen to bear."—*Savannah Republican.*

GRAVEL WALL, OR CONCRETE HOUSES.

MR. FRANCIS GILLETTE, of Hartford, Conn., writing to the "Homestead," bears the following testimony to the economy and durability of the Gravel Wall:

Having been often asked my opinion of the concrete or gravel wall style of building,—whether it is equal or superior to other styles, and its relative cost,—I take this mode of answering the inquiry, for the information of all persons who may be interested in the subject.

I am every way pleased with the *gravel wall*, and think it superior, in all respects, to any other. It is now nearly three years since I built a large square-walled dwelling-house of this material, and I have found it to combine every quality desirable in the walls of such a structure. It is permanent, not having settled or cracked. It is warm in winter, and cool in summer. It is entirely free from dampness, even in the dampest dog-days, no moisture having at any time been detected on the interior surface, though plastered directly upon the wall, without furring out, as is customary in stone or brick walls. Having formerly occupied a stone house, which was at times damp, though furred out and built with great care, the contrast in this respect is very noticeable. Being thus plastered directly upon the wall it affords no harbor race-course for vermin, to chase up and down, at all hours, day and night, more to their own amusement than to the entertainment of the hopeless occupants within. It holds the stucco perfectly, the surface being rough and admirably suited to this style of finish. It is cheap, costing in this vicinity, where gravel and filling stone are easily obtained, about one third the price of brick. Indeed, with my present experience, I could build at even a less comparative cost, perhaps one quarter.

All things considered, I am so well satisfied with the concrete or gravel wall, that should I build again, I should prefer it to any other material with which I am acquainted, even at the same cost.

In conclusion I will volunteer one suggestion as to the manner of constructing the wall. I pursued the common mode and used "flasks," or boxes in laying the wall. Were I to build again, I should cast the material beforehand, in rough boxes of the width of the wall and of any convenient length, and lay the blocks thus cast in mortar. This mode has many advantages. All danger from rain while the walls are still green and liable to washing is thus obviated; the walls can be made perfectly true and perpendicular without the constant trouble of moving and adjusting the flasks, which are very liable to be moved out of place; juts and angles can easily be accommodated to the shape of the wall, and the builder's taste can be gratified in this respect as readily as by any other material. Instead of the square or octagon form, best suited to the flask mode of construction, he can adopt the cottage, or any other style, however irregular and angular.

I shall be pleased to communicate any information which my experience may have afforded me, in relation to the details of this mode of building, believing it to be highly conducive in the promotion of domestic economy and comfort.

PRESERVING DRIED FRUIT.—One day last week, while purchasing a lot of dried fruit, we discovered small pieces of sassafras bark mixed amongst it, and, upon inquiry, were informed that it was a preventive against the worms. It is said that dried fruit put away with a little bark, (say a large handful to the bushel,) will save for years, unmolested by those troublesome little insects, which so often destroy hundreds of bushels in a single season. The remedy is cheap and simple, and we venture to say a good one.—*Lexington (S. C.) Flog.*

CHINESE AND SOUTHERN TEA.

THE Patent Office is in receipt of a communication, from Mr. W. W. Hazzard, St. Simon's Island, in Glynn county, Georgia, in which the writer requests to be allowed to make some experiments with the Chinese tea plant seed, &c., recently imported. He encloses in his letter some cuttings of a plant found in his own neighborhood, which he calls the Georgia tea plant, and the inference to be drawn from his remarks is that the plant is good as a substitute for the Chinese tea. His object in forwarding the sprigs in question is to have them compared with the imported plant, under the supposition that they are either identical, or of a similar species. He says the plant is indigenous to his vicinity of the State and found in great abundance. He speaks of the climate as being very mild, and says that the date and banana produce fruit there, which matures in favorable seasons; and he thinks, therefore, that it is a locality peculiarly adapted to experimenting with the Chinese tea plant.

[The plant forwarded to the Patent Office, by Mr. HAZZARD, was probably the *Yopon* (*Ilex Vomitoria*). It grows spontaneously along our Southern Atlantic coast, from Virginia to Florida, is sometimes called "North Carolina Tea," and is fully described in our 15th volume, (1856) page 140—also, in last year's volume, (1858) page 29.—Ed.]

CHINESE SUGAR CANE IN FRANCE.

WM. B. HODGSON, Esq., of Savannah, Ga., in a letter of Mr. GARDNER, published in the *Constitutionalist*, of this city, says:

"The immediate purpose of this letter, is to bring to your notice a new treatise on the culture of Chinese Sugar Cane, (*Holcus Saccharatus*) by Monsieur Hippolyte Leplay, which I have just received from Paris. This plant, Sorghum, having rather fallen into disrepute among some of our planters, I therefore attach a greater interest to this work.

"Mr. Leplay treats this plant, principally, in the light of its commercial value. It has been regarded by ourselves in the light of its economic value, or use for home consumption. The author treats of its properties for producing sugar and alcohol, or spirits. In common with my fellow planters, I have only sought to obtain from it syrup for plantation use, and forage for cattle. To this extent, I must speak well of its economic value; and my preparations, after some experience, are now made to obtain two thousand gallons of syrup.

"The operations of Mr. Leplay have been conducted in Languedoc and Provence, whose climate approximates to our own, if it be not its isotherm. He established sugar mills at different points, to which the cane was brought and sold. The price which he paid was twenty francs (about three dollars and eighty cents) for the weight of one thousand kilogrammes, or about two thousand two hundred pounds. From one hundred and eighty proprietors he purchased two million eight hundred thousand pounds of cane, which were reduced to sugar and alcohol. He estimates that the farmers cleared sixty dollars to the acre, by the sale of cane. A better cultivation, he thinks, would bring up the yield to one hundred dollars per acre.

"In the manufacture of sugar, he made numerous experiments, on the relative saccharine value of the cane, at different stages of maturity. He traces this up, from a point of imperfect vegetation, where the saccharometer, or sugar guage, indicated zero, as the sugar property of the cane juice. Then he measured its saccharine proper-

ties at *half* and *full* maturity. At this last point of full ripeness, the result was, a yield in sugar of fifteen per cent. of its weight. During the formation and maturity of the grain, the saccharometer indicated that the juice had all the properties required for chrystralization.

"He attaches great importance to the drying or desication of the cane, which is successfully practised, in preserving beet root, for the fabrication of sugar. The cane loses by this process seventy per cent. of its weight, but nothing of its sugar properties. It may thus be more readily transported, and manipulated at times of convenience.

"A comparison instituted by Mr. Leplay, of vine culture and of the Sorghum, for the distillation of spirits, gives a result, in favor of the latter, three times greater than that of the vine. He values the production of Sorghum, on one hectare of land at two hundred and seventy dollars; and that of the vine at ninety dollars. A hectare is about two and a half acres.

"This brief summary will show you what importance is attached to the Sorghum in France."

PLANTATION MANAGEMENT.

THE following "Hints and Observations," by a Mississippi Planter, are copied from *DeBow's Review* for May:

MANAGER: You have engaged me your entire services for the year, no portion of which are you justified in taking away by company, or absenting yourself, going to town or gatherings—for two important reasons: one, your time belongs to me; the other, your place is with the negroes. You then know what and how they are doing their work which *you may think they could have done*; by being with them, you may see the reason why they could not, or by a timely urging of them to their duty, avoid the necessity of punishment. By close attention to the interests of your employer, and the determination, under no circumstances, to neglect the same, you may assuredly expect to raise yourself, not only in his estimation, but of all those needing the services of a good manager.

TREATMENT OF NEGROES.

You are not allowed to take hold of the negroes to whip them, nor to beat them with sticks or clubs, or in any other manner than the most usual, with the assistance of the driver and the other negroes.

If he starts to run, and the other negroes will not stop him for you, let him go.

I wish them well fed, and clothed suitable for all the seasons, and not unreasonably exposed to the weather, and moderately but steadily worked. My object being more for a fair crop than a large one; in order to accomplish this, it will be necessary for you to have, at all times, your work, for days ahead, carved out—not only for fair but for foul weather; and above all, the best and most suitable tools in readiness, so there need not be one moment's delay. And the better to arrange this, you must have a place for everything and keep everything in its place.

One other thing I wish distinctly understood, my negroes are allowed to lay their complaints and grievances before me—of the justice and the remedy I will judge. To punish them for this, I will deem an insult to me, and you may consider your dismissal in preparation, and notice thereof will be given.

QUARTER.

Do you examine each cabin, to see if all are comfortable? Are the houses clean; also the yards and under the cabins? Do they keep their bedding and clothes clean, and have they mosquito bars? Have they plenty of wood, convenient to use in bad weather? Are the

fireplaces and chimney-backs in good order? Are all the cisterns full of water, and the pumps in good working order? Be sure this is the case on the 15th day of March, then turn the gutters off, but so they will not be injured, but ready for use any moment. A full supply of pure water will go far to insure health, and under no circumstances should what is called *seepage* water be used

HOSPITAL.

Are all your medicines fresh and suitable for all cases? Do you keep them corked, so they will not become worthless, and are all in their places? Have you the house suitable for all seasons, both for men and the women? And do you visit the sick three times a day in all cases, and in bad ones do you keep a special nurse, in addition to calling in a physician? Prompt attention and good nursing will arrest many diseases that would otherwise prove fatal.

CHILDREN.

Their house must be comfortable; their nurse must be always with them; they must have plenty of suitable food in addition to meat, bread, vegetables, and broth, molasses and buttermilk, and at all times suitably clothed for the season. The mothers must not be overtired, but allowed full time to give them proper care and attention, and, if possible, arrange their work near the quarter. This will save the risk of overheating in walking to and from work.

STOCK.

How many stock cattle have you? How many cows and calves? What attention do you give them, and what arrangements have you for their protection? How many sheep have you, and where do they range, and have you any shelter for their protection? How many stock hogs have you? How many sows and pigs have you, and how do you take care of them? Have you shelters to protect them from the rain and storms? Do you give them corn once a day, and do you give hulled cotton seed regularly each day to all your hogs? Good shelters for all your stock, kept clean and dry, will protect them against the cold and sleet of winter, and enable them to make a vigorous growth in the spring.

MULES.

Do you crush your feed for them, corn and cob, and keep rock salt by them all the time? How many curry-combs have you, and are they used? Have they free access to water, and how often do you feed them? Do you ever put copperas or sulphur in their troughs? Have they any pasture to run to when not at work? Are they well protected from the weather, and have you good racks and troughs for their food? A few acres in rye or winter oats, and the occasionally steaming their food, will go far to keep them in good order, and save your corn at least twenty-five per cent.

WORK-SHOPS.

Have you sufficient shelter and house room for all your tools, wagons, carts, &c., and do you keep them in their places? Have you plenty of well-seasoned timber, suitable for all your farm work during the next twelve months, to wit: plow-beams, plow-handles, harrows, wagon-bodies, axle-trees, spokes, hounds, felloes, and hubs? Have you suitable iron, for all work, three months ahead, and have you the work under way for the season just ahead of you? Do you know how many collars, hames, trace-chains and back-hands you have, and are all in their place, ready for use when called for? Have you made out a list of all the farm implements and tools you have during the last three months, and do you know the tools, such as axes, wedges, hoes, &c., each negro has, and how he lost or disposed of the best ones he had? Are the boxes in any of your

wagons or carts loose? Are the tires loose on any of them? Do the hind wheels follow in the track of the front wheels? The old adage, "a stitch in time," fully applies to the care of all farm implements and the economy of their use.

FARM WORK.

Have you examined all your ditches since the last rain, to see if they are opened all the way to the outlets? If there is any trash or drift in them, there is obstruction at some point, else they would keep themselves clean. Did you go immediately after the last rain to see if all your ditches were drawing, and did you notice any basins of water, from which a water furrow would lead off the water to a ditch? There is no use attempting to make a crop on land partially covered with water for days. Vegetation cannot go on, and no prosperous growth can take place until the dry spell in the summer comes, which may be too late for maturity. Have you examined the machinery of your gin stands, and did you, at the close of last season, take out the brushes and hang them up where rats and mice could not reach, and so cover up the stand that it would not be filled with dust, and did you assure yourself, long before their being called into use, that all were in order? And, above all, were your baskets and sacks, and all other work, in readiness at the beginning of cotton-picking time?

CONTRACT WITH OVERSEER.

Whereas, the undersigned is about to enter into an arrangement with A———B——— for the management of his plantation in —— county; it is expressly agreed and understood, that the undersigned is to use his best exertions, and all his time and energy, not only in the making of the crop, but in the care and attention to the negroes, property and stock, in accordance with the instructions now given in the foregoing suggestions, or that may be given from time to time, for and in consideration of the sum of —— dollars, for the period of time from the —— of —— to the —— or at the rate of —— dollars per month, if this agreement be dissolved sooner than the time specified, of which a notice of —— days must be given by each party.

In witness whereof, I hereunto subscribe my name.

MEASURING LAND.

Mr. A. S. FRANKLIN, of Monticello, Ga., writes to the *Constitutionalist*, of this city:

"In your issue of April 13th, there is a rule given for measuring land, which is, in part, incorrect. The part referred to as incorrect, is 'If you wish to lay off a square acre, measure thirteen rods on each side.' This lacks one rod of full measure. Now, a piece of land thirteen rods on each side, contains one hundred and sixty-nine square rods, which will be nine rods more than are in an acre. The exact length of one side of a square acre is indeterminate, as the number of square rods in an acre is a secret quantity, whose root cannot be precisely determined—sufficiently so, however, for all practical purposes. A piece of land, twelve rods, ten feet, seven and three-fourth inches (12 rods, 10 feet and 7 3-4 inches) on each side, contains one acre, wanting four-fifths of a square foot. Hence, to lay off a square acre, measure each side twelve rods, ten feet seven and three-fourth inches."

"To find the number of acres in a rectangular field, (square field,) multiply the length by the breadth, in rods and divide by one hundred and sixty—in yards, divide by four thousand eight hundred and forty. A square acre is about sixty-nine and a half yards in length and breath."

 A wise man will speak well of his neighbor, love his wife, and pay for his newspaper.

THE BRINLEY PLOW---SOUTHERN AGRICULTURAL Implements.

EDITOR SOUTHERN CULTIVATOR—Letters reach me from South Carolina to Texas, enquiring of the value of the Brinley plow for clay lands; for prairie lands; and some have asked me to reply through the *Southern Cultivator*. I presume many do not know I am interested, peculiarly, in the plow, and it is but just to them that they know; myself, son-in-law, and only brother, have Mr. Brinley in our employ. In justice to myself I must state, I never went into the manufacture as a speculation. I was governed by a different motive. I cannot work for nothing everywhere, though I have by pen for over 25 years; yet so far as I am individually concerned, I will be satisfied with interest, legal, paid in cash. It matters not to the public, whether he who supplies any article, makes money or loses money, provided he keeps up the supply, the article being good and at a fair price. If Philips & Kells can supply as good a plow, and as cheap as it can be made and brought here and sold, that is all the public have to do with the matter. I want to succeed. I want to supply the South and the North too, if so vast an idea can be fathomed by myself or others; or know it is done by *Southern men*. I saw the thousands and thousands of plows brought South, desired to see the South less dependent, corresponded with monied men, could get no one to venture; at length prevailed upon the husband of my only child and my only brother to go into the business, and we are at it; with, in all probability, the most extensive machinery in the South; machinery driven by steam and without blacksmiths room at all, we cover a space 155 by 40, main building a three story brick house.

To those interested, the question arises, am I so much interested, (or is it possible for man to be so unselfish, as to give the whole truth), as to be incompetent to give facts? My duty is plain—give my stand point as to the Brinley plow—and others can judge. I have been an interested spectator, as a planter, for 28 years, have been a disinterested contributor to the agricultural press since the 12th day of November, 1832. Have, no doubt, led men into error—never designedly—for, being deceived, I deceived others; have, perhaps, done some good. I have tested by absolute trial more plows than, perhaps, any man South, and ordered, 5 years ago, I think, a Brinley plow to test; the more I used it the better pleased, until at length, when about to start the factory, I wanted to know of Mr. B. if I could have his services and how. He wrote me, and, as a liberal, generous soul, he said if he found he could not move South, I should have all his improvements and for nothing; besides, he would come down and give us a start. Offered him a partnership, equal. At length he came.

The facts are now before the public. My interest as a planter, is precisely as of any improving man, and if I can find a better plow, I will have it. I honestly believe, on the lime lands that this plow will turn better than the wooden mould board plow, which many think indispensable. I believe the dynamometre will show a draft less by 20 per cent, over any plow I have ever seen used—except one—that one is almost unknown in the South. Never mind which that is—that is my secret.

I believe the Brinley plow will do equally as good work in clay lands. A stranger friend, from York District, S. C., another, from Fairfield, wants to know as to the clay lands there, which I knew 28 to 30 years ago. I say, the clay here has generally less silex not as pure clay, as those of Little River in Fairfield, but fully equal to those I remember in York, and I have plowed 6 inches deep all day and for days with two ordinary 14 1-2 to 15 hands mules, and have turned over sedge land 10 inches deep, clay land, though, only done for a little time to try. We can, at an expense of a dollar for a weed hook, turn un-

der any sedge here, and I have seen what many in Carolina and Georgia will not believe—pure sedge grass, broom sedge, full 6 feet high, I dare not say how much more. I do not know the inches of "BROOMSEDGE," and do not mean him. I have the Brinley plow now running the fourth or fifth year and worked on yearly by a *very common negro smith*.

I will do this. If any inventor will send me a better plow and give me permission to make and sell, I will adopt his. I banter no man; have not now any idea, at my time of life, to do what I never have done—bet. I prefer not being bantered, and yet desire to know of the fairest test. Brinley is a Kentuckian and, like myself, never ventures, from principle. We cannot afford to give plows to societies—would really prefer either B. or P. to be present at trials—as we cannot, not only for want of the needful, but other duties, but would ask Agricultural Societies to order and test.

The Directors of the Fair under the Mississippi State Bureau have offered a premium of \$50 for the best plow at the next Fair, supposing that would induce manufacturers to come forward. If the several States, say Mississippi, Alabama, Georgia and South Carolina, would each offer say \$50 or \$100 for the best plow, appoint a time when, even one week, if necessary, could be bestowed upon the trial, have the trial in some central point, say Montgomery, Ala., Atlanta, or Columbus, Ga., each State sending a committee of three gentlemen to conduct the plowing match, there might be a hope to draw out the full competition of plow-makers.

The plow is the most important implement to the planter, and I will contend for its being brought more to notice, even if called mad.

The hog is the most important animal, because more money for negro is spent for meat by the South than for any other, and I have urged it, therefore, I am called a hog man, some more polite call me a Berkshire man.

I leave this, Messrs. Editors, with you to publish or not, and your readers to judge. I could have published in my own paper (*Planter & Mechanic*), but you ask me for "light," that it may shine through the *Cultivator*, and your paper has a far larger circulation.

My planting interest gives me and mine all the necessities and luxuries we want, unfortunately, no little Philips' or Kells' to provide for, yet we must work and we intend to work; have long since scratched out *can*, we do, or die trying.

Yours sincerely,

M. W. PHILIPS.

P. S.—Since writing the foregoing, but before sending to the post office, I have received an account of a trial of plows made in this State, between the Calhoun plow, Hall & Spears and the Brinley. I merely give the conclusion.

Calhoun plow, with a furrow slice 6 deep and 9 inches, 54 cubic inches required, or 448 lbs.—a London dynamometre.

Hall & Spear, 7 deep, 7 1-2 wide 52 1-2 cubic inches, or 623 lbs.

Brinley, 6 1-2 deep, 9 in width, 58 1-2 cubic inches, or 336 lbs.

Brinley, 9 deep, 10 in width, 40 cubic inches, or 350 lbs.

The gentleman who was bantered says, when the dynamometre was used on the first of Brinley plows, the first time seen or used by the judge, they think, upon second trial when they learned better "the hang" of the dynamometre that the power would not have been over 308 lbs., instead of 336.

Another closed report stated that the 1 horse Brinley plow and 1 mule done deeper and better plowing than either of the others (1 and 2) with 2 mules. M. W. P.

THE JERUSALEM ARTICHOKE.

EDITORS SOUTHERN CULTIVATOR—Among the numerous articles published in your valuable journal I have not, as yet, seen one on the Artichoke. I wish to know whether it is a nutritious food for hogs? Will it fatten, &c.?

It is to be presumed that among your many subscribers and correspondents, some of them have sufficient practical experience in growing and consuming the above named product to be enabled to give your readers some information on a subject which may prove one of interest to the planter. I have been taking the *Cultivator* only since the 1st of January last, but have read a number occasionally for the last year or two, and it has been rather a matter of surprise to me that I have not seen this subject touched.

Is it because it is less useful and less nutritious than all other root crops? or, has such publication escaped my notice? My knowledge of the Artichoke is limited, but from having seen a few hills growing about my yard and garden the last two or three years, I am of opinion that, as to the yield per acre, it can scarcely be surpassed, if at all, by anything else.

Will you, or some of your readers who have some knowledge of this plant, give the desired information?

Respectfully, A. C. M.

Dresden, Navard Co., Texas, March, 1859.

We have published articles on this subject in former volumes, but we take pleasure in giving the following from the *Boston Cultivator*:

"Twelve years ago I read of the Artichoke, but found it impossible, as I thought, to get seed. In the winter of 1857 I accidentally came across some which had been raised by some Germans, from tubers brought with them from 'Dutch Land.' I dug my crop January 13th and 14th, 1858, it being fine weather. The yield was fifty-one bushels—at the rate of 708 bushels per acre. I did not consider this half a crop, for the following reasons:

"1st. The land was much worn—upland sandy loam—and has received no manure for many years.

"2d. They were not planted until the last week of April, which is too late—for, as it is a tropical plant, it should have the benefit of the entire season.

"3d. Owing to scarcity of seed (half a peck) it was cut extremely small—the size of a three-cent piece—and had lain for several weeks, being much dried and shriveled when planted.

"The Jerusalem Artichoke is, comparatively speaking, but little known. Schenck, in his *Text Book*, says: 'It is a small sun-flower, bearing nutritious tubers, for which it is cultivated. It is a hardy perennial of Brazil and was first carried to England in 1617.' * * * The stalks are large, frequently attaining the height of ten feet; the roots are produced in great quantity, the crop sometimes exceeding two thousand bushels per acre.'

"I will take him at one-half his estimate, and put the price at ten cents per bushel, and we have \$100 worth of the best kind of green food for horses, cattle, sheep, or swine. My horses eat them with avidity; yet they refuse potatoes and turnips. It is a crisp, sweet tuber, much more palatable in its raw state, to us, than a turnip; and one good quality it possesses as food for milk cows is, it does not impart any bad flavor to the milk. The *Farmer's Encyclopedia* says:

"The Artichoke will yield, with similar care, 30 per cent. more than the potato; and if the land be poor, it will yield at least double the quantity per acre. Being hardy, they can be left during the fall and winter in the ground, to be rooted up by hogs, great numbers of which may be fattened at little expense."

Edwards, Miss., April, 1859.

"One of the chief objections urged against their culture is, that, not being killed by winter, they will grow up amongst crops which succeed them, and thus prove troublesome. Where I grew my crop in 1857, I raised tomatoes in 1858. I found no trouble. This objection becomes a valuable quality if planted in a waste piece of land; as the crop will perpetuate itself. The Jerusalem Artichoke certainly deserves more attention from the farmers of the United States than it has yet received.

"The agricultural press of our country recommend the cultivation of root crops for stock. I have tried, in years past, the mangel-wurtzel, and ruta-baga, and, owing to the great expense of culture—keeping out weeds when quite young—gave them up as unprofitable—much as I like to see dumb animals enjoy green provender during the dry season. But with the Artichoke we can well afford to feed. Another advantage they possess over root crops generally, is this: the beets and ruta-bagas must have the best land, while the Artichoke can be put on a rough side-hill, and if just cleared, can be put in with a mattock. They do without cultivation. My crop noticed in this communication, was passed through once with a shovel plow only. My crop of 1858 I shall not dig until March, as that is the time I most need them, and they keep in the ground as nicely as anywhere.

Some of your readers wish to know if they can get the seed by mail. I answer, yes. I will exchange with any person having other valuable seed which I may want, or any person sending postage stamps sufficient to pay postage and remuneration for trouble, shall have their orders fulfilled. Of course small tubers will be selected. A few ounces would produce enough for a large plantation the second year.

W. W. RATHBONE.

Clifton Gardens and Nurseries,
Marietta, Ohio, Jan., 1859.

TURPENTINE AND ITS USES.

THERE are several hundred stills for the manufacture of spirits of turpentine in the State of North Carolina alone, while the States bordering on the Mississippi are all more or less engaged in it. The uses of rosin and turpentine seem to increase with every development of inventive talent. In painting, in printing, in soap making, and especially in lighting, its use seems to be almost universal. It forms an important element in many chemical operations, and it is estimated, in a late communication to the London Society of Arts, that from two to three hundred thousand dollars worth is consumed annually in the American India-rubber manufactories. From seventeen thousand to twenty-two thousand tons have been imported into England annually for many years past, and almost exclusively from the United States. Spirits of turpentine is obtained by distilling with water the semi fluid sap or pitch which exudes from incisions made in the wood of various species of pine; the product left after distillation is a rosinous solid, which is properly termed resin or rosin. Camphene, which is extensively used in lamps, as a substitute for oil, is spirits of turpentine purified by repeated distillations. Burning fluid is a solution of rectified turpentine or camphene in alcohol, the tendency of the turpentine is smoke being diminished by the addition of alcohol. Camphene and burning fluid, although highly inflammable, are not of themselves explosive; a mixture, however, of the vapor of these liquids with atmospheric air is highly explosive, and igniting at a distance at the approach of the slightest spark or flames, is apt to communicate fire to the liquids themselves. Burning fluid, being much more volatile than camphene, is much more dangerous. Oil of turpentine is extensively used as a solvent for rosins in the manufacture of varnish, and in the preparation of paints; also, to some extent, in medicine.

THE HONEY QUESTION, ONCE MORE.

EDITOR SOUTHERN CULTIVATOR—I shall have very little to say in reply to the communication of Dr. Baker, which appeared in your last number, indeed I believe I would have been quite willing to leave the whole matter in the position the Doctor has left it, had he not thought proper to submit to me a few direct questions. Respect for him demands that I should answer his queries, and in doing so I shall incidentally notice some other points introduced in his article.

In the first place, I do not consider that the merits of the question at issue, are either impaired or benefited by the Doctor's declaration, that his contribution to the *Medical Journal* was not intended as a reply to a short one of mine, which appeared in the same paper. I did not say that it was—I said it was intended as a *partial* reply, and said so because I thought the phraseology: "The chief object of this communication is to combat the erroneous, yet almost universal impression, that bees extract honey from flowers, &c," warranted me in the use of the expression. So much, then, by way of apology.

Dr. Baker says that "it is known that the subject in dispute," (that is, whether bees depend wholly on honey dew for their supply of honey,) "is of little moment in a practical point of view." I disagree with him, and boldly declare that I believe no question can be so trivial as not to merit the consideration of intelligent men, if, in so doing, light can be made to shine from darkness; and may I not hope that the Doctor will lend his aid in removing some of the superstitions under which men are laboring, even those "who study nature, not from books, but as they find it, in God's wide universe?" But to proceed.

In support of the assertion that bees never starve when they can leave the hive, I give my own, supported by the experience of others, with such information as may be obtained from other sources. I would here inform Dr. Baker that my hives are *not* surrounded by sugar hogheads, &c., but are three miles off from these resources, yet my city friends, who have any sweets about them, can attest that their neighbor's bees are quite a nuisance to them during the summer season. Now, am I to understand the Doctor to mean that bees visit these places, not to get wherewith to store in their combs, but simply sustenance for themselves? He certainly must mean that, for he says, "the hunter would not have been afraid of his bees starving had they been provided with syrup, &c., though with these resources at hand, he might have remained solicitous about his honey crop." (The reader will please refer to the Doctor's article.)

Dr. Baker desires me to assign a reason why the hunter's bees had collected no honey up to the middle of June. I wish it distinctly understood I have no disposition to make an issue of veracity, but I will say, that if the Doctor would turn his attention to bee-keeping for a while, he will meet, in the course of his experience, with many more wonderful things than the one to which he has called my attention; he would find that it is quite a difficult thing to ascertain the quantity of honey a hive may contain, even with the aid of the glass window, for the reason that too small a portion of the comb is exposed to view. Up to the time of the invention of glass hives, by Miraldi, a mathematician of Nice, very little of the indoor proceedings of bees was known, and even at this day, with all the ingenious contrivances of men, there is much mystery to be removed in the economy of this wonderful insect. In relation to the case in point, I am very certain that the hunter's hives contained much more honey than he supposed, and that the god-send, in the form of honey-dew, enabled the bees to fill their combs sooner than if they had to continue to draw on the flowers; but of two things the Doctor may rest assured, and that is, that the old hunter's bees were not in the least

danger of starving, and next, that the combs would have been filled had the honey-dew never appeared. I have frequently had the identical thing to happen with me.

When I said that bees gather nothing but honey and pollen, I thought that it would be understood that I meant from flowers; and if the Doctor desires to ascertain whether I am correct or not, I respectfully refer him to Reamur, Hunter, Huber and Miner, either of whom will not only sustain me, but satisfy him that pollen does not go into the composition of wax. I shall have to pass over several portions of the Doctor's article, not because they are unworthy of attention, or unanswerable, but for the want of space, and come down to his demand on me for an indisputable fact to prove that honey-dew is an exudation. I presume the Doctor is aware of the existence of two sorts of honey-dew, one of which is nothing more nor less than the excrement of the aphis, and the other is the one now under discussion, and which I call an exudation from the leaves of certain trees. I say it is an exudation, because I am very certain that it does not fall; then I have no other way for accounting for its appearance, then to suppose it must be forced out by some means or other. Such is my belief, but if the Doctor, or any one else, will give me a better theory, why I will adopt it. The Doctor says it occurs only at night. I cannot say whether it does or not—I have seen and tasted it, but cannot say at what time it appeared, but of one thing I am certain, and that is, that its appearance is a thing of comparatively rare occurrence.

In closing this imperfect communication I would call Dr. Baker's attention to the following note from Dr. Bachman, with the simple remark, that the Doctor's reputation is a sufficient guarantee that his opinions will command great respect:

CHARLESTON, 20th April, 1859.

V. LATASTE—*Dear Sir* :—In answer to your note of yesterday, in reference to the honey bee, I have to inform you that, although it feeds freely on honey-dew when that, at long and uncertain intervals, can be obtained, yet it derives its principal supply of honey from flowers, as may easily be perceived in dissecting it, and in the rapid increase of honey in the season when particular flowers are in bloom—such as the White Clover, Buckwheat, &c. You have asked so simple a question, that I am induced to believe that you have written with some other object than that of inquiring about a fact well known to all.

Respectfully yours,

J. BACHMAN.

I also present the following from Dr. Lee, another well known votary of science:

UNIVERSITY OF GEORGIA, April 25, 1859.

V. LATASTE, ESQ.—*Dear Sir* :—In answer to your question whether "bees gather honey exclusively from honey-dew or not," I would say that there can hardly be a reasonable doubt of their obtaining most of their honey from the nectaries of well-known melliferous blossoms. In his *Mysteries of Bee-Keeping*, page 91, Quinby says: "In good weather, sometimes a gain of 20 lbs. is added to their stores during this period of apple tree blossom." All large apiarists known to me are as careful to provide bee pastures for their numerous swarms, such as white clover and buckwheat, &c., as most farmers are to provide forage for their horses, mules and working oxen. Most honey-dew is known to be the so-called milk of the aphis—an insect said to be kept by ants as slaves for the saccharine fluid which they suck from the leaves and other parts of plants, and eject from organs analogous to teats adapted to the purpose. The *slavery* part of the arrangement is perhaps open to doubt; but many naturalists have seen the aphis, discharge the sweet, limpid and viscid substance called honey-dew, and ants, wasps and

honey bees collect the same. Neither dew nor the atmosphere has any agency in yielding honey, however, or wherever obtained. Sugar often changes in honey into the cells of plants; and aphides and other insects may occasion similar results, as when bees fill a hive with honey from loaf sugar dissolved in a saturated solution of water. Fruit, sugar and honey are modified cane, beet and maple sugar, having aromatic and flavoring substances added thereto. Hence, honey differs much in taste and quality, as does the sugar obtained from figs, pears and sweet apples. If one had bees that were able to transform fruit sugar into cane sugar for sweetening coffee, they would be worth a fortune. But no such bees exist.

Very respectfully,

DANIEL LEE.

I have no desire to treat the old hunters' opinions with any disrespect, certain that he is as sincere in their expression as Dr. Baker is in his, or I in mine; but I can scarcely allow myself to entertain the thought that any one will be found bold enough to contend that they ought to weigh against the opinions of men who have devoted their lives to scientific pursuits.

Very respectfully,

V. LATASTE.

Augusta Ga., May, 1859.

BURNING FORESTS.

EDITOR SOUTHERN CULTIVATOR—Although I have been a subscriber to the *Cultivator* from its earliest existence, yet, like some others, I have generally left the writing for its columns to wiser heads and abler pens. Indeed, if it were not for the supineness of the human mind so that we need "line upon line and precept upon precept," it might seem as if every subject which relates to human economy has been already exhausted; yet there remains a small subject which I do not recollect ever to have seen written upon, and I would like to see it discussed. It is the burning of rough woods. Does it injure the land? or if it does, is this injury sufficient to balance the danger of letting it remain so foul? Perhaps I remain almost alone on the side of burning rough woods. My opinion is that the action of fire upon land does not injure it, but that it exerts a salutary influence in the strengthening of land. If we notice, for instance, where a pile of trash or litter has been burnt and after which grain has been sown, it always marks the spot as being more luxuriant than the surrounding growth. Besides, the burning of woods destroys ticks, flies, and many other insects that so much annoy both man and beast. It also consumes the mushroom that proves so fatal to our hogs in many instances; and, to a great extent, destroys the cause or dries up the source of the exhalations and malarias that produce sickness. If the woods are left in a rough state the range would be materially impaired in a few years; so much so that our stock would not pick up sufficient during the summer season to be able to stand the winter.

It is a grand scene to see an unbroken sheet of fire across a forest of rough woods or bay swamp of brushwood growth; but to see a city on fire of a dark, windy night, or a whole country, thickly settled, and houses and plantations with many other combustibles, with rough woods between, on fire on a dry stormy day, is terrific, indeed, and is sufficient to cause Belshazzar's knees to smite together.

J.

Pope Hill, Ga., 1859.

If a man, as the Scriptures say, "cannot live by bread alone," is it not wise in him to take a help-meat.

A man who undertakes to reach a high position by making speeches, is like a parrot that climbs with his beak.

MEASURING CORN IN BULK.

EDITOR SOUTHERN CULTIVATOR—I see you continue to admit articles on Measuring Corn in Bulk, so let me give you the following, which exhausts the subject:

Multiply together the dimensions in feet (or feet and fractions, if there are fractions) and from the product deduct *one-fifth*. Now, this gives the bushels of matter—corn, cob and shuck. If the corn is shucked, divide by 2, according to the old rule, which says shucked corn on the cob turns out one-half. If the corn is unshucked, divide by 3, according to the old rule, which says corn unshucked turn out one-third.

Explanation.—The reason why you deduct one-fifth is simply because a cubic foot is almost exactly four-fifth of a bushel—1728: 2150:: 4: 5.

The above rule only makes a error of about 3 bushels in 800. In reducing the gross contents to bushels of grain, of course, there can be no fixed rule to go by; but I say divide by 3 for unshucked corn because it is the most prevalent opinion that unshucked corn turns out one-third. But this must vary with the quality of corn. My own opinion is that heavy corn close slip-shucked turns out more than one-third, and, therefore, the gross contents shuld not be divided by 3, but probably by 2 1-2 or 2 3-4. Small-eared corn, with much shuck on it, does not yield one-third, and probably should be divided by 3 1-4 or 3 1-2. The gross contents in bushels is ascertained by the above rule on a plain and unquestionable mathematical fact—and as to reducing the gross contents to bushels of grain, let every man divide by what he thinks proper—2 3-4, 3 or 3 1-4, according to the quality of the corn.

OZAN.

Hempstead, Ark., March, 1859.

MEAT---SMOKED AND UNSMOKED.

EDITOR SOUTHERN CULTIVATOR—I have been a constant subscriber and reader of the *Cultivator* for the last eight years, and have gained a great deal of information from its pages. I think it but right that we who live by agricultural pursuits should not only gain information on the subject, but impart what knowledge we may gain by experiment, &c., for the benefit of each other. The subject to which I would call your attention, (also your correspondents and readers,) is one which has occupied my mind, attention and some experiment for several years.

It is this: Smoking Meat. What property has smoke in curing or preserving bacon? If as good or better bacon can be made without smoke, why not abandon the practice? In this age of progress, men are puzzling their brains to make labor-saving machinery, and to do the most with least labor. Of course our fathers all smoked their meat, but is that sufficient reason for us to continue? I trow not. I have seen and eaten as good bacon as I ever saw in my life, and now have some in my smoke house that never had a particle of fire or smoke in the house, entirely free from bugs or worms.—I, also, am acquainted with several gentlemen who have abandoned smoking their meat for the last six years, with entire success.

It not only saves some trouble, but less danger, as I have known several meat houses burned down, and have frequently seen meat badly spoiled, not, I presume, by smoke, but by too much heat.

B. F. T.

Haywood, Tenn., 1859.

To preserve a friend, honor him when present, praise him when absent, and assist him cordially in time of need.

If misfortune come into your house, be patient and smile pleasantly, and it will soon stalk out again, for it can't bear cheerful company.

SORGHO SUGAR---PEAR ON THE HAW, &c.

EDITOR SOUTHERN CULTIVATOR—I have often been tempted to drop you a communication, but finding each successive paper so freighted with matter, more interesting than any I had on hand, I have heretofore been content to be a student. Yet I know it is through the free interchange of thought and experience, on the part of the votaries of any science, that the most rapid advancement and highest approach to perfection can be obtained. The cultivation of the soil—the noblest pursuit of man—that which brings him most into communion with Nature and Nature's God, should, and will, in the progressive development of the world, occupy the first position among sciences. There is, therefore, much responsibility connected with writing for the Agricultural and Horticultural world—perhaps more than is generally supposed. An experiment stated by a correspondent of the *Cultivator* affects the time and money of perhaps several hundred readers. If some writer in a newspaper should say soak your seed in concentrated sulphuric acid, some of the thousands of readers would spoil their crops, and the character of book farming suffer accordingly. We want cautious, carefully conducted experiments, distinctly, truthfully described. Then there is no danger of taking one step forward and two backward; but "forward and upward and true to the mark." And in the spirit of friendly candor, I think we should freely criticize whatever does correspond with our experience and obsevation,—so here goes."

An article quoted in the April number of the *Southern Cultivator*, from the *Farmer & Planter*, over the signature of "Glucose," says: "Careful experiments made by distinguished chemists during the last year have settled the point that the Sorghum belongs to the family of grasses which secrete "Glucose," or fruit sugar—not crystallizable or cane sugar."

My experience of last year comes in conflict with the above. From the juice of the Sorgho I made about 20 pounds of large, sharp, well defined crystals of—must not it have been cane sugar? The only chemical difference between the two is a little more water in the one than the other; and under certain circumstances, such as the presence of acids, or long boiling, cane sugar readily passes into grape sugar, or "glucose."

When the Sorgho had reached a certain stage of ripeness; the heads black, but the seeds not hard, the leaves still green and succulent, the pith perfectly opaque, and of a slight greenish tint, I found no difficulty in crystallizing. But when the seed became hard, the blades turning yellow, the pith partially translucent, with a red centre; I found its crystallization impracticable with my means of experiment. And in the latter case, the juice contained a much larger amount of acid than in the former, which readily accounts for the difference in results. I have good reason to believe that a common error, both in making syrup and sugar, has been in allowing the cane to stand too long. A neighbor of mine, against my remonstrances, last year, spoiled his crop in thi way. He waited for thorough ripeness until the fodder dried up, and for want of lungs the cane threw out a second growth of suckers. The consequence was he got all juice and but very little syrup.

Now, nothing can be truer than the second paragraph in the article above referred to. The Sorgho has suffered severely at the hands of its friends. The truth turns out, that instead of 400 gallons to the acre, one hundred is good cropping—and how much better would we want? I was offered last year one dollar a gallon for the syrup I made. No one would expect to made more than one-fourth of a hundred dollars off of an acre of cotton, on such land as I had planted in Cane.

Another writer in the *Cultivator* has met with dis-

appointment in grafting the Pear on the Haw. I have experienced more favorable results. The stock I use is the large Red Haw, common in the woods. I grafted about a dozen Apples and one Pear on a bearing Haw, perfectly decapitating the stock. Some of the apple grafts grew the first season over five feet, and one matured an apple. The pears had grown, up to some time in August, about four feet, but then had the misfortune to get broken off. The tree is now healthy, the stock making no effort to throw out branches of its own. I have a row of year old dwarf Pear trees in my garden, all on Quince Stocks, save the finest one, which is on the haw. There is some difficulty in getting healthy haw stocks from the woods. They have not made the necessary root arrangements for being transplanted from the shaded copse to the open garden. No doubt from the nature of things, that Seedlings raised in the garden would be much preferable on account of the large number of fibrous roots they would develop.

I have written much more than I intended. I will try to avoid the same fault next time.

SYLVANUS.

Sumpter County, Ala., April, 1859.

COTTON SEED CRUSHER, &c.

EDITOR SOUTHERN CULTIVATOR—I see you speak of "Crushing" Cotton Seed for manure, in a recent number of the *Cultivator*. How is it done? I am satisfied that planters lose a great deal of very valuable manure by throwing out their seed in the fall and letting them lie in large piles—heated almost hot enough to take fire—until spring. If they could be killed, at a small expense, by crushing, they might be housed until time for banking out, and then put in the ground, when the valuable matter given off during decomposition would be absorbed and saved. I have tried several plans for using them, but the only one that saves all of their strength is a little troublesome, and most farmers will neglect them until it is too late. Planters need information in regard to their management of cotton seed. Can't you give it?

Where and at what price can I get the "Cotton Planter's Manual?"

Yours truly,

M. H. B.
Cedar Town, Ga., 1859.

REPLY.—Rowe's large Crusher, (heretofore described in our paper,) would, we think, effectually crush Cotton Seed. Will Col. JOHN BONNER, of Hancock, give us his experience? You will find Prof. JACKSON's analysis of Cotton Seed in present number, and the price, &c., of "Cotton Planter's Manual" on page 153 of our last number (May, 1859).—ED.

GUANO---DOES IT EXHAUST LAND?

EDITOR SOUTHERN CULTIVATOR—Having seen it stated lately in several agricultural papers, that the constant use of guano would exhaust the potash, soda and magnesia in the soil, and entertaining an entirely different opinion, (although I have never used it) I most respectfully ask of those who entertain the opinion that its use will exhaust the soil o' the above-named salts, on what reasons their opinions are founded? Although, as above stated, I have never used guano; yet its analysis has induced me to believe that its use will not exhaust these salts in the soil.

If I had ever written any article for publication in a paper I would most willingly produce arguments and facts to sustain my opinion; but, never having done so, I do not feel disposed to do so at the present time, but in support of my opinion I will only ask of those who entertain a contrary opinion a few questions, the proper solution of

which will, I think, satisfy them that my opinion is correct. The sterile sands along the coast of Peru, by the application of guano, have produced fine crops of corn for ages. Boussingault raised peas in perfectly fine sand, moistened with pure water. Now, as neither corn or peas can be raised without potash, soda and magnesia, and, as these salts do not exist in the atmosphere, the question naturally arises, where did those salts existing in the corn raised on the above-named sterile sand and Boussingault's peas come from? They must have come from somewhere, and the question is, from whence came they? The proper solution of this question will convince every impartial mind that the use of guano will not only not exhaust the soil of its potash, soda and magnesia, but on the contrary, that it is one of the best substances they can apply to them to increase the supply of potash, soda and magnesia for their crops, rendering free and soluble that which, before its application, was locked up. Light upon the action of all manures upon the soil is what all we planters desire; we want the reason why and wherefore this or that substance applied to the soil will be beneficial or hurtful to our crops, and not men's opinion unsupported by reason. He who can solve the questions I have asked will at once see the action of the alkalies on the soil; he well knows that guano is rich in ammonia and that ammonia is alkali, and be convinced that its use will not exhaust the soil of the salts I have mentioned.

An acre of the most perfect barren sand at the depth of six inches contains thirty tons of potash. Now, we will suppose that there is taken from an acre of such land annually 1600 pounds of cotton and this, cotton contains, in round numbers, 19 pounds of potash, (see Turner's Cotton Planter's Manual.) How long will it take this quantity of cotton, annually taken from such land, to exhaust it of its potash to the depth of six inches? And when exhausted to this depth of its potash, soda, magnesia and other salts there will be little remaining of this six inches of anything; then we have another six inches to operate upon when the first is gone, and when the second is gone we have another, and another, until we reach the solid rocks. The most perfect sandy barrens are composed mostly of potash, lime, magnesia and soda, potash being the largest portion. Then as long as we have land to stand upon we have tons upon tons of potash, &c., in the soil; but this is a digression from the question. Where did the potash, soda and magnesia come from that the corn raised on the barren sands mentioned contained? and the same salts contained in Boussingault's peas?

If you think this worthy a place in the *Cultivator*, you can put it in ship-shape and give it to my planting brethren for what it is worth. It may be the means of inducing some more able mind than my own to investigate the action of manure, and especially the alkalies, on the soil; if so, it may result in benefit to the planting community.

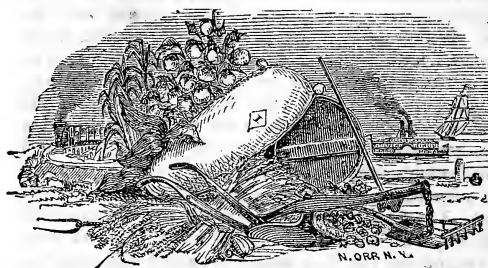
I am, most respectfully yours,

J. M. MERIWETHER.

Mount Elba, Ark., April, 1859.

THE FARMER.

No dread of toil have we, or ours,
We know our work and weigh our powers,
The more we work, the more we win,
Success to trade,
And to the spade,
And to the corn that's coming in;
And joy to him, who o'er his task,
Remembers toil is Nature's plan—
Who working, thinks,
And never sinks
His independence as a man.



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., No. 6: JUNE, 1859.

A CARD.

SEVENTEEN years of, faithful and successful service in promoting the Agriculture of the South, have given the *Southern Cultivator* a degree of vitality and strength, and so many warm friends and able contributors, that it can well spare the aid of my editorial pen. In retiring from the paper, it is due to the proprietor, Dr. JONES, to his brother, JAMES W., (who has watched over its business affairs from the issue of the first number,) and to Mr. REDMOND, who has for years performed much more than half of its editorial labor, for me to say that our associations have always been pleasant and satisfactory.

To the friends and patrons of the *Southern Cultivator*, I tender my grateful thanks for the uniform courtesy and kindness extended to the undersigned for many years.

DANIEL LEE.

University of Georgia, April 25, 1859.

In tendering our good wishes to Dr. LEE, on his retirement from the *Cultivator*, we take pleasure in assuring our readers that the future of our journal shall do no discredit to its past; and that, with the improved facilities which we now possess, we can confidently promise even a more practical and progressive Agricultural Monthly than we have heretofore furnished.

We do not intend to make any alteration in the general character of the *Cultivator*, except such as may add to its usefulness and value to Southern Planters and their families; and we shall continue to work faithfully and earnestly for the rural and social advancement of our readers, and the general improvement of the South—asking only for our labors such recognition and reward as they may deserve.

TO CORRESPONDENTS.—We are, as usual, obliged to postpone the publication of some of the contributions of our kind friends, until our next issue. Will our correspondents please bear in mind that we put our paper to press 15 or 20 days prior to the month in which it is dated? And will all who send us articles for the *Cultivator*, be sure to enclose their proper names on a *private* slip to the Editor?

ANSWERS TO CORRESPONDENTS.

CHINA TREE AND BERRIES.—A. G.—The wood of the "China," or "Pride of India," (*Melia Azederach*) is of much value to cabinet makers, and always commands a high price, when properly prepared. The young trees are of very rapid growth from the seed, and as they are not liable to decay, would make excellent stakes for vineyards. The berries, placed around the stems of peach trees, are said to keep away the borer, (?) and a few handfuls of the leaves, destroy worms in horses. A gentleman of Mobile states that "the China tree was introduced into this country before the revolutionary war, by a mercantile firm of Philadelphia and Eatonton, North Carolina, which traded with China. The first tree was planted in the former city, but, under an apprehension that it would not live in so northern a climate, it was removed to Eatonton, where it grew apace, and was greatly admired. After it commenced blooming, the people came as many as twenty and thirty miles to see it. From this single tree, it was propagated through the country, and now, in most of our cities, it is one of the commonest of our shade trees. The first tree was still vigorous twenty years ago." We hear of two or three sub-varieties of the China tree in Alabama and Texas—one with variegated leaves. Can any of our readers send us descriptions and seeds of these novelties?

MANURE FOR YOUNG FRUIT TREES.—L. S. J.—If you can conveniently apply the liquid manure heretofore recommended, (May number, page 129), there is nothing better. If not, you will find swamp muck, or any black earth, leaf-mould, scrapings from hedge-rows, mixed with lime, most excellent. Wood ashes contain much lime, and the lime in them is in the best possible condition for this use. Do not lay your manure too near the body of the tree. The small rootlets of a young tree are, of course, near the stem; but with an old tree it is different. They have been pushing outward for years; and now they draw the nutriment for the tree from a circle, ten, fifteen, and even twenty feet from the center. For a large apple tree we would spread the compost over a circle of twenty to forty feet in diameter. When in Cincinnati, last fall, our friend, ROBERT BUCHANAN, Esq., pointed out to us some very thrifty and productive apple trees, standing on a hill side, covered everywhere with a close, green turf—in fact, a perfect grass-plat or lawn; and informed us that to keep his trees in the perfect condition which they presented, it was only necessary to spade in a plentiful supply of manure at the ends of the roots every second year, and to give the trunk and main branches of the tree an occasional washing with soap-suds.

"GOING TO FRANCE," &c.—Will the "Patron and Subscriber" who sends us this article, be good enough to furnish his name? It is against our rule to publish even the best and most acceptable communication, unless we know the name of the author.

"THE CONCLUSION OF THE WHOLE MATTER."—E. J.—This communication, though forcible and able, would, we fear, keep alive an active discussion on an unprofitable theme, and might stir up unpleasant feelings. Will our friend, "E. J.", consent to its suppression, for the present?

CULTIVATION OF THE PEA NUT.—L. W. H.—Received too late for this season. Will be reserved, for publication at the proper time.

WATERMELON SEED.—OZAN.—We sent you the desired seed, per mail, as requested.

IMPROVED GIN HOUSE.—J. B. P.—Your plan is excellent and practical, and we may have it engraved for publication hereafter.

"RURAL PROSPECT."—*Aristander*.—Your poem will appear hereafter. It was received to late for present number.

LIGHT BREAD.—L. T. J.—We cannot find the recipe you allude to. What number of the paper did it appear in?

"SLAVE TRADE," &c.—"Planter" forgot to send us his name, lacking which we cannot publish his communication, without violating one of our standing rules. Moreover, we think it best to discontinue the discussion of the Re-opening of the African Slave Trade, for the present, in these columns. Enough has been said on this subject, *pro* and *con*, and we shall now let the matter rest.

YAZOO HORSE POWER.—T. G. C.—Address Mr. Jas. L. COLEMAN, of this city.

FIGS IN TENNESSEE.—J. H. A.—The fig may need a slight winter protection with you, in Sevier county. It is raised as far North as Raleigh, N. C., and Petersburg, Va., by covering the branches with straw or pine boughs, from 1st of Nov. to 15th of April. The No.'s you desire were sent.

BOOKS ON FLOWERS.—Mrs. Dr. H.—"BRECK's Book of Flowers," and "BUIST's American Flower Garden Directory," are the best. See May No. (1859), page 153.

COTTON SEED, &c.—Mr. V. LA TASTE filled your order as requested.

GESTATION OF ANIMALS, &c.—E. T. E.—The article you desire was published in our February number (1859), page 38. The receipt of the paper by you is a proof that your letter and money came to hand; as we send no papers without the dollar in advance.

THE CURCULIO.—L. H. S.—Our plan of Plum culture is to plant the trees close—say 10 to 15 feet—to put up a tight fence around the orchard, and then turn in a lot of young "sheats," and let them range freely during the season, feeding them under the trees. This, we believe to be the most economical and effectual mode of destroying the Curculio; but a late number of the *Genesee Farmer* contains the following specific:

"Remedy for the Curculio.—To one pound of whale oil soap, add four ounces of flour of sulphur. Mix thoroughly, and dissolve in twelve gallons of water.

"To one half peck of quicklime add four gallons of water, and stir well together. When fully settled, pour off the transparent lime water, and add to the soap and sulphur mixture.

"Add to the same also, say four gallons of tolerably strong tobacco water.

"Apoth this mixture, when thus incorporated, with a garden syringe, to your plum or other fruit trees, so that the foliage shall be well drenched. If no rains succeed for three weeks, one application will be sufficient. Should frequent rains occur, the mixture should be again applied, until the stone of the fruit becomes hardened, when the season of the Curculio's ravages is past."

The above, being highly recommended, is copied from the *New York Observer*. A correspondent of that paper having tried the preparation on part of his trees, secured a good crop of fine fruit, while on those to which it was not applied no fruit was matured. Will not fruit growers generally give it a faithful trial the coming season, and publish the result?

 Wit is a dangerous tool. It may tickle, but tickling isn't safe if, while it makes us laugh, it gives us pain.

SOUTHERN WINTER APPLES.

A FRIEND, from Atlanta, (whose zeal in all rural improvements is well known,) has kindly placed upon our table a box containing the following Southern Seedling Apples, viz: Shockley, Stephenson's Winter, Nickajack, Oconee Greening, East Point Greening, Green Crank, (No. 2,) Yellow (English) Crab, Hockett's Sweet, and Yates. He informs us that he has also our favorite fall Apple—the *Mangum*—yet in an excellent state of preservation, and that no especial pains have been taken with the above varieties more than to keep them in the equable temperature of a dry cellar. They are now (May 10) almost as good as when they were gathered last fall; and afford another most gratifying evidence of the great advantages which we possess in the cultivation of all varieties of fine fruit.

Such winter Apples as these before us, were entirely unknown to the great mass of our people, a few years since; but now, that our collection of Southern native Seedlings embraces a complete succession of this excellent fruit for the *entire year*, we have not the slightest excuse for either regarding the Apple as "forbidden fruit," or for purchasing it, at a high price, from distant producers.

We have cultivated fruit of all kinds in the neighborhood of Augusta for many years, and have never yet failed of a crop of Apples, even when nearly all other fruit was destroyed. We say, then, confidently, *plant an abundance of Southern native Apple trees*, and success is "certain and sure."

A "LITERARY DEPARTMENT."

To the friend who suggests the establishment of a separate department in the *Cultivator* for "news and literature," we would simply remark that we deem it best strictly to adhere to the purpose which has controlled us hitherto, viz: the *improvement of Southern Agriculture* and the social elevation of the tillers of the soil and all who love and honor rural pursuits. We shall not attempt to graft upon this sturdy stock, the ephemeral and puerile trash which forms so much of the "current literature" of the day. Let those who desire a pure and healthful literature, seek it in the pages of our standard English and American authors, and all who crave "news," should betake themselves to the daily papers, which are the proper dispensers thereof. The present limits of our journal are very ample, and we take occasion, from time to time, to introduce miscellaneous articles of general interest. Farther than this, however, neither our own judgment nor the taste of our readers will allow us to deviate from the strictly *practical* character which we claim for our paper.

"THE COURANT."—The first number of this literary paper is before us. It is a very neat weekly, of 8 pages, edited with much ability by HOWARD H. CALDWELL, Esq., aided by a large number of the most talented writers of the South. It is published at \$2 per annum, in advance. Address WM. W. WALKER, Jr., & Co., Columbia, S. C.

CONDENSED CORRESPONDENCE.

A subscriber, of Ripley, Miss., says:—"Your paper is looked upon as an OLD FRIEND, and I find it very hard to do without it, as I miss it more than any other reading; You will find my one dollar, the old price, enclosed.

Yours respectfully, J. W. K."

LIME AS MANURE.—Editor *Southern Cultivator*—Will you be so kind as to inform me, through the columns of the *Cultivator*, of the best manner, or way, to apply lime (as manure) to light sandy soil, the quantity, &c. By so doing you will oblige me and many others here, wishing to know.

Yours, &c., R. G., M. D.

Cotton Hill, Ga., 1859.

REPLY.—Lime may be applied to such land as that of our subscriber, at the rate of 25 to 40 bushels per acre. If slackened with strong lime, made at the rate of 1 bushel of salt to every 4 or 5 of lime, its efficacy is greatly increased. Lime is not, in itself, strictly a manure, but it wonderfully assists in converting vegetable matter into good manure, and in increasing the absorptive power of dry, sandy lands.—ED.

VALUE OF THE CULTIVATOR—NEW COTTON, &c.—A very intelligent and progressive Planter, of Oglethorpe Co., Ga., writes:

Allow me to congratulate you upon the greatly improved looks of the *Cultivator*. No farmer or planter or housekeeper in Georgia should be without it, at twice the price. I have the first volume of it bound, and some four or five others unbound. And notwithstanding many "old fogies" will not subscribe—it is with me as it is with Judge Andrews—it is a necessity now, and one of those necessities that "grows with what it feeds on."

Long may its banner wave,
And its columns flutter o'er
Ignorance and Error's grave—
Let it wave forever more.

Excuse the doggerel for the sentiment.

I wish I could get you 500 subscribers in this county; but the little exertion I have made has ended so unencouragingly to me, that I have let them alone as joined to their idols—of *trash-politics*, and demagogism.

By the way, last fall I discovered and secured a boll of cotton which was well grown and contained eleven distinct locks of cotton. I have preserved the seed, and hope to get some more this year of the same sort! I found several with six locks in the boll!

F.

WEEVILS IN CORN.—A subscriber, writing from Huntsville, Columbia county, Florida, inquires for a remedy for Weevils in Corn, and says:

Weevils in corn are a terrible pest in this country, and if there is a remedy in the known world for the destruction of such a pest, please oblige your humble servants by publishing it in your next issue.

J. T. G.

REPLY.—It is said that pitch is so offensive to weevils, that it is only necessary to smear it over the surface of a lot of old boards or planks, in the granary or corn crib, to drive them entirely away. Cannot some of our readers give us farther information?—ED

"DEADENING" GREEN TREES.—I would much be obliged to some of your subscribers if they would tell me when is the best season of the year and the best method of deadening Sweet Gum. I have just commenced a farm on bottom land that has a great deal of gum on it, and I am entirely ignorant of the best way of killing them, and I have no doubt but some of your subscribers are well in-

formed on the matter, and by giving me the desired information they will much oblige a new-beginner at the business.

C. L.

THE BUCKEYE POISONOUS.—Can any of our readers furnish an antidote for the poison of the Buckeye? "R. S. W." of Crawfordville, Ga., writes:

Our cattle die here every spring from eating Buckeye leaves. We do not know of any antidote. I have tried oil, lard and strong coffee, and in every instance I made a failure. I had a fine cow that lingered for three weeks, and then had her killed. If you know of any remedy, will you be so kind as to give it to me through your valuable paper?

PIP IN FOWLS.—In answer to the inquiry for a remedy Pip in Fowls, I would state that I use asafetida by putting it in the water; but more as a preventive of all diseases than a remedy.

S.

Oakhurst, Richmond Co., May, 1859.

DEEP WELLS, PUMPS, &c.—Can you or any of your subscribers give us in this section some ideas as to the best method of getting our drinking water to the surface; many of us having to drag it up by dint of hard labor from depths of one hundred feet, with the old-fashioned windlass, which is laborious to the last degree, and I, for one, am getting tired of it. Can science do nothing for us? Do you know anything of the pump advertised in the New York *Observer* by J. M. Edney, 147 Chambers St., New York?

W. T. C.

[A force-pump, let down into the well, within 25 or 30 of the water, with connecting rods to the surface, will, perhaps, answer your purpose. We know nothing more of the Pump of Mr. EDNEY, than is set forth in the advertisement you refer to.—ED.]

PEACH BORERS, &c.—I have circumvented the Peach Borer!!! Scrape away the dirt, pick out the grub, and wrap the collar of the tree with rags.

We are taught that the fly lays the egg in the spring but I have found grubs of all sizes from a "3" to a "30 penny" every day in the year. We must make it a physical impossibility for them to get to the collar or our labor, however incessant, will be fruitless.

Hot water will not kill them, when well covered with bark, though it is a valuable application to the tree, and a delightful solvent of the gum. I have also found it impossible to save Pear trees from rabbits by anything less than a similar application.

Therefore, "save your Rags!"

F.

[A writer in the *American Farmer* recommends coal tar as a sure preventive of the Borer in Peach trees. We will give his article in our next.—ED.]

JAPAN WAX BERRY.—Gen. CAMPBELL, our Consul at London, sends to the Agricultural Department of the Patent Office seed of the Japan Wax tree, and samples of the wax, a cargo of which was recently brought to England in an American vessel. Consul CAMPBELL thinks the tree would succeed well in the Southern States, and we have written to the Patent Office for seed, in order to give it a trial.

All subscriptions to the *Southern Cultivator* commences with the January number.

No life can be well ended that has not been well spent; and what life has been well spent that has had no purpose, that has accomplished no object, that has realized no hope?

Botanical Department.

FRUIT GROWING, IN A GENERAL POINT OF VIEW.

BY L. E. BERCKMANS.

Of late a great deal has been written about the cultivation of fruit trees, and especially in regard to the pear.

Discouraged by partial or local failures, some have contended that it was impossible to grow pears with any prospect of certain profits. Some have said as much against the peach and grape vine. We have no reason to stand up in defence of any species of fruits: but, taking a general and unprejudiced view of the matter, we may express our surprise in witnessing these efforts to restrain the cultivation of useful products and that from the part of gentlemen who are willing to try every experiment, every remedy to promote the raising of field or garden crops, often more uncertain than those of fruit trees.

If those writers would only cast a glance over the products destined to the sustenance of men and animals, or to the dainties and luxuries of our tables, how much more deserved they would be in their attacks!

The main question is this: "Can or shall we dispense with fruit and confine ourselves to corn, wheat, rice, &c.?"

By a wise provision of nature, the fruit crops follow each other in succession, so as to enable us to satisfy throughout all the year, those natural cravings for fresh fruit. The strawberry is succeeded by the currant, raspberry and gooseberry; by the apricot, early apples, plums and peaches; then comes the pear, the grape, the late apples. We mention only the natural products of given localities, and not the supply from distant tropical points. We should like to see every locality and latitude depend upon its own resources in cases of emergency, as they depend upon their own field crops. Home-grown fruit is generally in a better condition than transported fruit; and, if not altogether as good in quality, it will keep better and cost less.

But to return. Shall we give up the cultivation of some sorts of fruits, on account of a few drawbacks, and dispense entirely with these? We could as well ask: shall we give up the tomato, the egg-plant, the melon, the okra, which cannot be considered an indispensable food, but only as luxuries and dainties, because they are not mere necessities, or because they require so much care and watching, and are exposed to so many failures? What has become an article of diet or luxury for the mass, has either to be raised at home or imported at double cost. There is no protesting against that. Pears and grapes, if neglected and given up at home, will as surely be imported as silk and lace. Whoever thought of giving up the cultivation of the potato on account of the rot and its many ruinous failures, or the wheat for the rust, the fly, or the weevil, or the grape for the oidium? Is a melon less cultivated, here at the North, because it requires so much watching and protecting, or the egg-plant or lima bean abandoned, because they are so uncertain; or, are our best vegetables discarded because exposed to the ravages of a host of insects, spring frosts, and other drawbacks? No, we struggle and toil, and try again, and more highly prize that which costs us the greatest efforts.

It seems rashness to condemn a certain sort of fruit, because one or two men have failed in limited, poor localities, in ungenial latitudes; and because in the bitterness of their disappointment they write and write again to discourage others. It is one of our weaknesses to judge about everything from a limited and narrow point of view. A gentleman, after years of successful cultivation, finds out one season that the borer has taken hold of his apple

trees, or that the yellows and the borer are destroying his peach orchard; instead of trying other fruits or remedies, he yields to an impulse of disgust and disappointment, takes his pen and writes a bitter philippic against apple and peach trees. Is that the way we have to do? These are partial, local failures, grains of sand in the vast ocean, and ought not to be mentioned by men of enlarged and comprehensive intellects. If, induced by their verdicts, we abandon the fruit culture, because such culture would not pay in certain cases, what would the people of the Union do? how could they be persuaded to dispense with apples, pears, peaches or grapes? The mere supposition of such a gap in our markets, now that the public is used to all these luxuriant and wholesome products, and fully appreciates the healthful influences of a bountiful consumption of fruit; the mere supposition of such a deficiency would seem as ridiculous as the idea of dispensing with tomatoes, cabbages, celery, rhubarb, which are no more to be considered necessities of life than a peach or a pear.

Alphonse Karr, the French humorist, once wrote in his Hornets: "Let the strawberries fail for three days in the Parisian market, and there will be a revolution;" and, in a certain measure, this is true. Suppose we had to get along without apple-pie—dried peaches and apples, not to speak of fresh fruit, still more conducive to health, more emphatically indispensable—and what would be the result? Apples would sell as once in San Francisco for two or three dollars a piece. One of my friends assured me that he saw Oregon apples sold for six dollars a piece; but let them be, it is enough to show the eagerness of all of us, from the child to the oldest man, to get hold of a fine fruit.

Since, then, it must be admitted that fruit is not only a luxury, but a necessary article of food and human diet, shall we not then do for the fruit crop what we do for field crops? The same amount of labor which is required for a couple of hills of corn or potatoes, bestowed on a fruit tree, will most always insure its success. If crops fail for a year or two, one good season pays for all. Even our field crops would have little to suffer from the presence of some fruit trees, kept under judicious treatment. All we have to do is to try to find out what our soil can and will produce. Few soils are unfit for all sorts of fruit trees. In places where no corn or rye will grow have I seen many a good acre covered with the Catawba and Warren grapes and yielding from four to six hundred dollars per acre, in soils abandoned as unfit for every other cultivation. South Carolina and Georgia will soon be awake to this new enterprise, and acres upon acres of land not worth five dollars, are going to be converted into vineyards to supply the Union with wine, equal, if not superior, to any Hock or Madeira. Because Cincinnati has failed for the last two seasons to produce the usual quantity of wine, are the gentlemen of Ohio going to give up the cultivation of the grape? Please ask them if their winters were not so severe, or other causes interfering, would there be any diminution in the yield of their vintages? And because France, Italy, Madira and Spain have seen their vineyards destroyed by the oidium, for years in succession, are they going to cut down their vines? No, they resort to every means to cure, to restore; they struggle manfully, with redoubled energy, and they, at last, have conquered the enemy. What a difference compared to the fastidiousness and puerile disgust of our fruit cultivators! What are the borer, the yellows, the blight all taken together, when compared to that scourge of the French vineyards, the oidium? and still they did not talk of uprooting their vines, but went to battle with the aid of science and experience, and after years of ruin and disappointment, they have restored, at least partially, vigor and health to the once abandoned grape vines.

And now because the vine and peach cannot bear twenty-five degrees below zero, because some localities are infested with the borer, or the blight; because one sort of fruit does not succeed all over the Union, in damp and dry, cold and warm soils alike, shall we abandon their culture altogether?

This year the pear, the apple and the peach are failures in a large portion of the Union, although I saw splendid crops all over the South. The cherry and the grape failed, and even the blackberry was scarce; is that a sufficient reason to write against these crops when the field crops are in a still more precarious condition? All we have to do is to study our climate, our horizontal and vertical latitudes, our peculiar situations, our soils and its constituents, in order to find out the aptitude of our localities, to produce certain sorts of fruit; to look out for hardy, prolific, varieties among every species of fruits; to study the wants and resources of the markets, and my word for it, gentlemen, fruit cultivation will prove to be as profitable as any other business, now that every business has proved so fallacious and so uncertain.

The profits of the farm, orchard, or vineyard, although uncertain, and exposed to many failures, are, just now, as good and as much to be depended upon as the profits of good commercial transactions. Let us not discard a fruit tree because it does not yield a certain profitable crop every year, or because it is subject to a few diseases, or inconveniences. What are these compared to the dreadful scourges of the field crops, the rot, the hessian fly, the rust, the cotton worm, the mould, the heavy rains or freshets, the protracted drouths, which yearly destroy thousands of acres of wheat, potatoes, cotton, &c., while, in the same soil, the sturdy apple tree, the vine or peach tree, plunge their roots deep into the subsoil, and live, thrive and yield crops in the middle of the ruins of the withered or rotten products of the fields.

I will repeat again: let us find out what kind of fruit is suited to our locality and *what varieties* are to be selected in that family; let us only cultivate the most vigorous among the good varieties, and not vainly struggle against nature's laws, in obstinately cultivating fruits unfitted for the location, or only good for the catalogue of an amateur. Let us consider that fruit cultivation requires as much book farming as corn or clover crops, although many think it sufficient to stick a poor tree, on which a poor variety has been budded, in a poorly prepared soil; and, because *it is a tree*, is expected to grow in opposition to all the laws of nature, and under a treatment, which they should be ashamed to give to a corn or a potato hill. Let us not discourage others because a few of us have failed in some of our expectations. The field is large, and the resources in varieties of fruit immense. Let us, in respect to fruits, stick to the motto of our learned and experienced President, "*eternal vigilance*." This ought to be, and is indeed the maxim of every enterprising mind. It is the price of fruit, as well as of liberty. Without persistence, obstinacy, renewed efforts in cases of failure, nothing can be achieved; and the great wonder of our age, the Atlantic Cable, would be still "*subjudice*," a mere matter of politics and learned discussions, were it not for that glorious obstinacy of one of the most distinguished sons of Massachusetts.

We have a wide area, a better climate, generally speaking, for fruit crops than Europe; I can safely state that having seen more fruits of the choice kinds in a single exhibition in Boston or Rochester, than in twenty of the best exhibitions of Europe, where at least fifty fruit trees are cultivated upon a given space for *one* growing here; where (as in Germany) the Governments compel the farmer to plant the roadsides with fruit trees, for the benefit and relief of the poor or thirsty travellers. Why shall we turn in disgust from that source of health and luxury, because a few fail, and write their impressions

in a bitter mood of disappointment? The successful fruit grower enjoys the satisfaction, pockets the money, and says not much; he knows that a fruit tree requires no more trouble or extra care than a few cotton plants or a cabbage; pays better, lasts longer, and, in a compared series of seasons, has paid five times more for the place occupied, than the very best of his market produce, with perhaps not half the expense. Let us keep up the fruit culture, or some of our neighbors will supply our markets; let us try every variety; what has been done years ago can be done again; better and more hardy sorts of fruits can take the place of old varieties; and chiefly let us consider that fruit is as necessary an article in the markets as any of the products of our fields or gardens. The exportation of our apples to Europe proves that fact conclusively.

"PRUNING FRUIT TREES."

EDITOR SOUTHERN CULTIVATOR—In your May number is an article from the pen of Mr. J. Van Buren, on the subject of Pruning Fruit Trees. I call attention to the article not for the purpose of controverting any opinions therein expressed, but to elicit from the writer something more definite on a subject of so much importance. It is very generally agreed among Southern orchardists that young trees give most satisfaction to the planter. It is, also, agreed that these trees should be trained with low heads, and that, to do this effectually, they should be headed back, when set out, to a height of about three feet.

Well, all right so far. "Young Horticulture," we will suppose, has made a purchase of vigorous maiden trees, has set them out and topped them *a la mode*, "and with evident self-satisfaction fancies himself" at the end of the most troublesome part of the job. Soon, however, a difficulty arises. His vigorous trees throw out branches from bottom to top. What shall he do?

He has heard that the leaves are the lungs of a plant, that by them the sap is elaborated and made fit for its use and that, in short, its very existence depends upon them. He wishes his plant to become well established. An abundance of leaves will accomplish his object. He wishes the body to become stocky that it may withstand severe winds. Branches distributed along it will secure the end desired. The first year is peculiarly trying to his tree. He does not wish to take a single step in a wrong direction. He consults the horticultural *savans*.

One says: "Rub off all shoots as they appear, except such as you wish to form the head."

Another: "Pinch out the terminal buds of such branches as will not be needed in giving the tree the required shape, cutting them off after the first year."

A third: "Give all the shoots an equal chance the first year, afterwards trimming to your notion."

And still a fourth: "Cut off the top, and forever after let it alone."

These opinions are set forth in something like the above language the different horticultural schools.

Now, "Young Horticulture" is sorely perplexed. Will Mr. Van Buren say what is the *proper* manner for pruning a tree after it has been topped back?

Mr. V. B., also, gives the approved plan for pruning peach trees, viz: That they should be shortened about half their growth annually. Is that *all* that is necessary? Will they not become more like hedge-plants than fruit trees, unless something else is done? Will not the very compact heads induced by this mode of trimming require considerable thinning out, that sufficient light may find its way to "the interior of the tree?"

In behalf of "Young Horticulture," I respectfully ask the above questions. Standing merely as a querist, I express no opinion of my own.

R. B. KEON.

Collierville, Shelby County, Tenn., May, 1859.

HOW TO INCREASE THE SIZE OF FRUIT.

BY A. DUBREUIL.

THERE are many processes by which the size of fruit may be increased, such as training, thinning, watering, pinching, &c. The French cultivators excel in this department of pomology; and as there is unusual interest manifested in obtaining large and fine specimens, particularly for exhibition, we are pleased to present our readers with the following valuable information, detailing the principle operations for obtaining such results. The article is by A. Dubreuil, one of the most skillful French cultivators, translated from the *Annales d'Horticulture de Grand:*

1. Grafting the Trees on a weak species of Stock.—Fruits, like leaves, have the power of attracting the sap from the roots, and of transforming it into cambium, or organisable matter. But, contrary to that which takes place in the leaves, they employ all the cambium which they thus elaborate for their nourishment. If the stock on which the tree is worked is naturally possessed of great vigor, the tree will produce numerous long shoots, which will appropriate the greater portion of the sap, to the detriment of the fruits, which will, consequently, not attain a large size. They will, on the contrary, acquire a larger size if their absorptive power can counterbalance that of the shoots. It is for this reason, that, all other things being equal, the fruit of trees worked on the quince stock is larger than that from trees worked on the pear stock. The same thing takes place with regard to apple trees grafted on the Paradise, as compared with those on the Crab stock.

2. Subjecting the Trees to a proper mode of Pruning.—This operation when well performed, has the effect of depriving the trees of a certain portion of their shoots. Hence it follows that a great portion of sap which would have been absorbed by the parts cut off, goes to increase the size of the fruit. The object of summer pruning is likewise the complete or partial removal of a number of shoots by disbudding and pinching. These operations contribute to turn the sap to the benefit of the fruit; and under like circumstances, the fruit of well-pruned trees is always larger than that from trees left unpruned.

3. Operating so that the Bearing Shoots may be as short as possible, and in the immediate connection with the main branches.—If the mode of pruning adopted is such that the bearing shoots immediately proceed from the principal branches, the consequence is that the fruit, receiving the sap more directly from the roots, acquire a larger size. In fact, it is seen that fruit growing on the stem is always larger than that situated at the extremities of long, slender branches.

4. Thinning the Fruits when too numerous.—The quantity of sap, disposable for the growth of the trees, does not increase in proportion to the fruit which it bears. It is, therefore, apparent that the more numerous the fruits, the less the amount which each receives. Hence the utility of thinning, in order that those retained may be better nourished and become larger. The proper time for performing this operation is when the fruits are fully set.

5. Shortening the Principal Branches.—If the length of the principal branches is, to a certain extent diminished, by shortening them at the winter pruning, a result analogous to that produced by ordinary pruning will follow; but the effect on the fruit is much more intense, because the action of the sap is confined within narrower limits. It is, however, important to check in summer the vigorous shoots, of which a great number will be sure to make their appearance, otherwise they would absorb a large amount of sap, to the detriment of the fruit.

6. Supporting the Fruits so that their weight may not cause a strain upon the Footstalk.—The sap from the roots enters the fruit by means of vessels passing along the footstalk, and which ramify, to an infinite extent, throughout the cellular mass. Bulky fruits, such as pears and apples, soon attain such a weight that they exert a strain on their footstalks, which, by tightening the woody fibres and vessels, tends to collapse them. The tissues of the stalk being thus composed, the passage of fluids is, to some extent, obstructed in that part. Moreover, if fruits are attached to a branch having a more or less vertical direction, their gravity will cause a bending of the stalk, and will thus still further obstruct the passage of the sap. Again, it often happens that the fruit does not make an equal growth on both sides of its longitudinal axis, and a twisting of the stalk and strangling of the vessels take place, in consequence of which the circulation is partially intercepted. Now, if a support is placed beneath the fruit so as to prevent these effects on the stalk, it is very evident that the sap will flow in much greater abundance into the fruit, which will then become larger. This is the reason why those fruits which accidentally rest on branches or trellises are always of greater size than the rest.

7. Moderating the amount of Evaporation from the Fruit.—In order that fruits may swell, their epidermis, or skin, must be continually expanding, so as to make room for fresh tissues which are forming in the interior, and the new fluids that are accumulating there. If all the parts of fruit are directly exposed to the full force of the sun and the drying action of the air, it will lose by evaporation an amount of fluid nearly equal to that which it receives from the roots, and its growth will, therefore, be less rapid.

On the other hand, the tissues nearest the outside will acquire a greater degree of firmness, and lose, to some degree, their elasticity; they will offer more resistance to the expansion of the interior tissue, and will consequently restrict the growth of the fruit. If, on the contrary, the fruit is kept in the shade, these influences will not affect it, and it will become larger. Indeed, this may be observed in the greater proportion of fruits covered by leaves as compared with those on the same tree, not so covered. It is necessary, however, in order that shading may not affect the quality of the fruit, to expose the latter when full grown to the direct action of the sun. To diminished evaporation must be attributed the considerable increase in size which always takes place in fruit introduced into bottles soon after it is set. The mouth of the bottle being closed after the proportion of branch with the young fruit is introduced, the latter is secluded from the drying action of the air, and is constantly surrounded with a moist, warm atmosphere, which keeps the epidermis pliable, and stimulates the growth of the tissues.

8. Moistening the Fruits with a solution of Iron (copperas).—We have already stated that fruit has the power of drawing towards it sap from the roots. If means can be found stimulating its vital energy, it will be perceived that it will absorb a greater amount of sap and attain a larger size. Now, M. Eusebe Gris has proved that a solution of sulphate of iron applied to the leaves has the effect of increasing their absorptive powers, and stimulating their cellular tissues; and it was only reasonable to suppose that salt would produce the same effect on the fruit. This, indeed, has been ascertained by M. Arthur Gris, who has continued the interesting researches of his father. He has proved that melons, and various species of fruit trees, the leaves of which had been watered on several occasions with a weak solution of sulphate of iron, yielded much larger fruits than those not so treated. One of my pupils repeated the same experiment in 1854 and 1855 on pear trees. He gave the first watering so soon as the fruits were fairly set, in the end of

June. He repeated the moistening every fortnight, in the evening, in order to prevent evaporation, and that absorption might be completely effected during the night. The solution was at the rate of 26 grains to a quart for the first three, and 35 grains per quart for the two last waterings. He sent us, in the end of February from a tree thus treated, an Easter Beurre, so large that it could scarcely be recognized. He obtained like results in the following season.

But we doubt whether the results would not be still more successful if the fruits alone were moistened with the solution, for then they would experience the stimulation of their absorptive powers, and would thus draw to themselves a much greater quantity of sap, inasmuch as the absorption by the leaves would be much less intense. Experiments should, therefore, be made with regard to this point.

9. Ringing the Shoot or Branch immediately below the Flowers.—Lancry exhibited to the Societe d' Agriculture de Paris, in 1776, a branch of a plum tree which he had ringed. The fruits situated above the incision were much larger than those beneath it, and their ripening much farther advanced. Colonel Bouchotte, of Metz, thought of practising this operation on vines, in order to ascertain their ripening. He ringed about sixty perches, and the grapes were larger and fifteen days earlier. I have, within the last twelve years, repeated the experiment nearly every year on vines against walls, and always with like results. I have also tried it with the same success on the bearing shoots of the peach tree. It is necessary to perform the operation when the flowers are opening; the longer it is delayed after this period, the less is the effect produced. The incision should penetrate to the wood, and the ring of bark removed should have a width equal to half the diameter of the shoot. The width, however, should not exceed one-fifth of an inch, otherwise the wound will not close up, and the success of the operation will be affected. For removing this ring of bark we have invented a small instrument, called a *coupe-seve*.

10. Inserting on vigorous trees Fruit-buds, with a portion of the wood attached (Greffes en ecusson Girardin).—This proceeding is only applicable to apples and pears. [Chiefly to these we should say; for it has succeeded even in the case of stone fruit.] A tree which, in consequence of excessive vigor, has never produced blossom buds, may by this means be made to produce fruit of large size from the abundant supply of sap which the inserted blossom buds will receive. But in order to derive the greatest benefit, it is necessary, during the growing season, to pinch the vigorous shoots of the tree, otherwise these shoots would absorb the largest portion of the sap, to the injury of the fruit.

11. Inarching vigorous Shoots on the footstalks of young fruits on the same tree, or on the bearing shoots near to where the fruits are attached.—Professor Thouin describes, *Monographie des Greffes*, a similar operation under the name of *Greffe par approche Leberriays*. M. Luizet, of Equilly, who certainly did not know of that description, again discovered this kind of inarching, and practised it with the view of increasing the size of fruits. This is how he operates:—About the end of June he selects a vigorous shoot, which he inarches upon the peduncle of a fruit; then as soon as the union is effected, and the shoot has grown sufficiently to draw the sap in large quantity towards the juncion, he pinches the shoot in order to prevent it from absorbing too much sap to the injury of the fruit. When the stalk is too short, the shoot is inarched on the opposite side of the branch to that on which the fruit is situated. In both cases the shoot thus inarched acts as a nurse to the fruit, by drawing to its vicinity a large quantity of sap, and thus contributing to greatly increase its bulk. M. Luizet exhibited, in September last,

at the exhibition of the Paris Horticultural Society, Easter Beurre and Grosse Calebasse Pears, and likewise Clingstone peaches, which had been treated according to this method; and they were much above the ordinary size of these varieties.—*Magazine of Horticulture*.

HORTICULTURAL SCHOOL FOR WOMEN.

We find the following advertisement in all the leading papers of New York:

GRAND HORTICULTURAL FESTIVAL AND SOIREE DANSANTE.—A series of elegant entertainments to be continued from May 9th until the 16th inst., will be given at the Palace Garden (now greatly improved) and in the new and spacious Hall on the west side of the grounds, *in aid of a contemplated Horticultural School for Females*. Oratory, Music, Flowers, and Birds will be brought into requisition to make this the most interesting, intellectual and attractive Festival ever given in New York.

And we have this explanation of the objects of the exhibition, from the *Tribune*:

"An effort is soon to be made by some noble women of our city to establish, on Long Island, a Horticultural School for Girls, where they may be practically instructed in Vine-dressing, the cultivation of Fruits and Flowers, and the related departments of Rural Industry. We regard the idea as beneficent and hopeful, and the enlargement of the sphere of Woman which it contemplates as the proper antidote to some of the sorest evils which now beset the path of that sex which has hitherto been accorded too much flattery, too little justice, and hardly more than a semblance of opportunity. One rare merit of this plan is its palpable fruitfulness: if we suppose no more than forty women induced by it into the branch or branches of industry contemplated, each of these will separately become a teacher in turn—not a pupil merely, but a school. We believe the idea perfectly feasible, and, as the public is only asked to attend a series of attractive entertainments to be given in its behalf, we trust the response will be general and hearty."

GRAPE CULTURE AT THE SOUTH AND West.

A distinguished cultivator of the Grape, who resides in St. Louis, Mo., and who has recently spent several months in the South, says, in a private letter to the editor of this journal.

"I have received the treatise on '*Grape Culture and Wine Making in the South*,' which I have read with interest and profit. The good, sound, practical directions contained therein must do a great deal towards stimulating and directing wine growers towards success.

"Wine growing has been entirely successful in this latitude, and is destined to increase until it stands among the most important and beneficial pursuits of the country; but from all I can learn of the experiments at the South, I am certain you have a far better climate, and that the culture will meet with corresponding success and profit. Your wines will have more body, but, perhaps, less delicacy than those of the Northern [or Western] States, but your crop will be far more certain; as I am told they are seldom or never affected by rot, which is occasionally so destructive here. If any remedy for this could be found, we should have here 700 or 800 gallons to the acre, instead of 300 or 400. But for this we can only hope."

"Premiums have recently been awarded in this city for the best treatise on wine growing. The one selected will soon be published—when out, I will take pleasure in forwarding it to you."

"I should be pleased to hear from you at all times with regard to this interest in your part of the country.

Yours very respectfully, W. G.
St. Louis, Missouri, April, 21, 1859.

For the Southern Cultivator.

THE FLOWERS.

TO MRS. E. P. C.

A blessing on the broad, bright lands,
Whose children come to ours,
And lead us with their fragrant hands
Around the World of Flowers.

No dust upon our sandalled feet,
As they who go to find,
In other lands, a flower as sweet
As one they left behind.

With them our thoughts all journeys take,
With them our fancies roam,
And ever when we will, we wake
And find ourselves at Home.

They bring to us the star-ward Palms
Beyond the Orient seas,
They breathe for us the blended balms
Of the Hesperides.

They wake for us the breath and bloom
Where soft Circassia smiles;
They veil beneath their tender bloom
The maidens of the Isles.

They bid the green Oasis creep
Around the Desert wells;
They sound on many a cedar steep
The sweet Pa joda bells.

All times and climes they journey through,
Until their pathway lies,
Beyond the gates of Morning, to
The Walks of Paradise.

And many an Angel of the Earth
Their upward path hath trod,
Gone from our garden gateways, forth
Into the arms of God.

T.

April, 1859.

NEVER TOO LATE.—The feeling is sometimes expressed that it takes so long a time for fruit trees to mature, that a person in middle life can reap no advantage from the planting of an orchard. A year or two since an active old gentleman said to us, "Call and try some of my apples. After I was *seventy years old*, I set out my trees, and now I am eating the fruit of them." Let not our friends be discouraged. If they have failed heretofore, to get an orchard to suit them, let them try again—if not more than *seventy-five years old!*—*Exchange.*

THAT BOTTLE OF WINE.—Our friend and fellow townsman, James A. Clendinen, placed upon our table a bottle of his Muscadine Wine. It was excellent, and we relished its flavor exceedingly well. Mr. C. made some five or six hundred bottles, and he informs us that he is going into it largely this year—*Abbeville (Ala.) Advertiser.*

NANKIN COTTON---PEARS---GRAPES, &c.

EDITOR SOUTHERN CULTIVATOR—Is the Nankin, or Yellow Cotton, cultivated by any one of your acquaintances or subscribers? and could I get some of the seed? No matter how small a quantity, from half an ounce upwards. Why has it so generally gone out of cultivation? Is it because it is not of ready sale? for, if so, I do not wish to have anything to do with it.

I have had a most abundant crop of Pears the past year, and many new ones among them. The *Viscompte de Spoelberg* proved the best of its season, being delicate enough to give to my infant born in February last, but it has the bad habit of bearing excessively. The *Bezy de Bretagne* proves a vigorous grower, abundant bearer, excellent fruit for cooking, and a crisp, juicy; tolerable one for eating, and ripens when Pears are rather scarce. It is in every respect superior to the *Martin Sec*, and ripens much later as well as much better.

I have three or four varieties of Grapes, received from Italy about 22 years ago that still live; some do well in spite of total neglect, the mocking birds eating all the fruit. They were sent me as wine grapes. If you wish them from me, another year I will try to be prepared to furnish roots of the most vigorous, and cuttings of the others.

I intend to plant only short stapled cotton on one of my plantations, (on the main), and to try it on a small scale on the island one. Long cotton has proved a poor business to me.

Who makes the best Saw Gin, and has the gin much influence upon the price of the lint in market?

Some of these questions I would like to see in the *Cultivator*, and would have no objections to seeing all, as a part of the information may prove acceptable to others as well as

Your humble servant,
Beaufort, S. C., 1859.

R. C.

[Will some of our correspondents answer the questions in regard to Nankin Cotton—the Saw Gins, &c.?—Eds.]

RINGING THE GRAPE VINE.—An experiment has been tried in France and in this country, on the grape-vine, by which the size and quality of the fruit may be increased, and the period of its maturity hastened. A narrow ring of bark is taken from the bearing stem near its junction with the main stock. It must be as deep as the *liber*, i. e., penetrating the two barks. The effect is to check the formation of leaf, and to accelerate the growth and ripening of the grapes by at least a fortnight. Specimens from vines treated in this manner have been shown at the Exhibition in Paris. The fruit was larger than that of the un-ringed branches of the same vine. This is an interesting experiment, and may be tried to an extent sufficient to gain a practical test without injuring the plant.

WINE MAKING—After all that has been accomplished, there is an absurd idea prevalent that wine cannot be profitably raised in this country, that labor is too dear, and European opposition great. On the contrary, wine raising is at this instant the most profitable branch of agriculture in America. It will pay from one to three hundred dollars an acre, yielding a higher profit on capital, skill and labor invested, than any other planting. The wines which can be most easily raised are, like those of Germany, light and very innocuous.—*Hartford Times.*

 A good citizen is a peace maker! A bull in a china-shop is a peace maker too.

**SPURRY--LUPIN--COTTON SEED OIL AND
Cake.**

EDITOR SOUTHERN CULTIVATOR—Will you please be so good as to answer the following questions in the *Southern Cultivator*:

Where can Spurry and white Lupin seed be obtained? What is Cotton seed Oil worth per gallon?

It is necessary to know what the oil is worth to know what the seed are worth. Boussingault says that 32 lbs. of oil cake from cotton seed is worth for manure as much as 31 1-2 lbs. guano. Ten grains of cotton seed, after being hulled, leaves 6 grains of seed and 4 grains of hull. Now, as four bushels of cotton seed make 100 lbs., according to some person's statement—but 108 according to my measure and weight—but say 100 lbs.; then take 40 lbs. from the 100 lbs. for hull, and 20 lbs. for oil, and we have 40 lbs. left, or 10 lbs. of oil cake to the bushel. Now if guano is worth \$60 per ton, 32 lbs. of cotton oil seed are worth the same, or is equivalent to 31 1-2 lbs. of guano. How much ought cotton seed, including the oil, to be worth per bushel? According to Boussingault guano contains 6.20 of nitrogen. Jackson states cotton seed to contain upwards of 7.0 per cent.—as I have not Jackson's analyses I cannot state the precise amount. Please give Jackson's analyses of cotton seed in your next number. You will find it in the Patent Office Report for 1855, I think.

Yours respectfully,

J. M. MERIWATHER.

Mt. Elba, Ark., April, 1859.

REPLY.—Spurry furnishes a very nutritious food for cattle and sheep, and is much cultivated in Flanders and other portions of Europe, but the yield per acre is small, and we have in this country many forage plants superior to it. The wild Lupin is much used in Italy for the renovation of the soil, but we do not think it any respect better than our common Cow Pea. The seeds of these plants may be imported from France for you by our correspondent, Mr. V. LA TASTE, of this city; or it is possible that they can be furnished by the large seed dealers of the North. We do not know the price of cotton seed oil. Will some of our New Orleans correspondents inform us? The analysis of Professor Jackson, we give below, from Patent Office Report of 1855, pages 236-7-8.

Notice, particularly the last sentence of Prof. JACKSON's report, which we have italicised:

CHEMICAL EXAMINATION OF THE OIL-CAKE.—Linseed oil-cake is well known, both in Europe and in this country, as valuable food for cattle, and as an excellent fertilizer, worth from \$40 to \$45 per ton, for the latter purpose. On examining my cotton seed oil cake, I found it possessed a sweet and agreeable flavor, and was much more pure and clean than linseed oil-cake. One hundred grains of the seed leave 60 grains of oil cake. This cake, examined for sugar, was found to contain 1.1 grains, and for gum, 35 grains were obtained. Iodine gave no proof of the existence of any starch in cotton-seed, nor in the oil-cake. Alcohol dissolves out the sugar, which is like that obtained from raisins, and is grape-sugar. Boiling water dissolves the gum, and becomes very mucilaginous. The gum is precipitable from the water, by means of pure alcohol.

ULTIMATE ANALYSIS.—Cotton-seed being quite peculiar in its nature and character, I was disposed to investigate the elementary constitution of the oil cake, and having, with great care, made the organic analysis and verified it

by repetition of the process, I obtained the following results in per-centages:

| | |
|------------------------|--------|
| Carbon | 37.740 |
| Oxygen..... | 39.663 |
| Nitrogen..... | 7.753 |
| Hydrogen..... | 5.869 |
| Salts (inorganic)..... | 8.960 |
| | 99.985 |

These salts were obtained by the combustion of a separate portion of the same cake.

Wishing to determine the nature and chemical composition of the salts contained in the seed, I burned 300 grains of them to ashes, in a platinum crucible, and obtained 16.5 grains of ashes, which yielded alkaline salts, soluble in a small quantity of water, and other matters, which I dissolved in acids. Of the 16.5 grains of ashes, I found 9.13 grains consisted of phosphate of lime.

On separation of the various salts, and reducing them to their ratios, for 100 grains of the oil-cake, I found the results to be as follows:

| | |
|--|------|
| Alkaline salts, soluble in water..... | 0.13 |
| Phosphate of lime..... | 3.04 |
| Potash | 0.46 |
| Soda | 0.53 |
| Phosphoric acid, with traces of sulphuric acid and chlorine..... | 0.81 |
| Silica and oxides of iron and manganese..... | 0.18 |
| | 5.15 |
| Loss | 0.35 |
| | 5.50 |

The whole amount of phosphoric acid present was 2,456, and of lime, 1.34 per cent. The excess of phosphoric acid, beyond that required for the saturation of the lime, was combined with the alkalies, soda, and potash. The chlorine and sulphuric acid existed in unweighable traces, in so small a quantity of ashes.

The foregoing analyses of cotton-seed justify and explain the use made of them by Southern planters, in preparing the soil with the rotted seeds, as a special manure for Indian corn, which draws so largely on the soil for phosphates. It will also be seen that, since the cotton-seed oil-cake contains nearly eight per cent of nitrogen, and nearly six per cent. of hydrogen, the elements of ammonia are present in sufficient quantities to form about 10 per cent. of ammonia, a powerful stimulant to vegetation, and a solvent and carrier of humus into their circulation. The carbon is more than sufficient to take up all the oxygen in the formation of carbonic acid, another active fertilizer; and the excess of carbonaceous matter will remain and form humus, or vegetable mould, which the alkalies, soda, potash, and ammonia will, in part, dissolve and carry into the circulation of plants, which possess the power of approximating and converting it into their tissues. The phosphates go ultimately to the seeds, and, in Indian corn, and in wheat, concentrate wholly about the germs, in their mucilage or "chits." Thus it is proved that every ingredient of cotton-seed cake acts as a nutriment to vegetation.

“AGRICULTURE,” says Socrates, “is an employment the most worthy the application of man, the most ancient and the most suitable to his nature; it is the common nurse of all persons, in every age and condition of life; it is the source of health, strength, plenty and riches; and of a thousand sober delights and honest pleasures.”

Modesty is more becoming, and always esteemed more valuable than beauty. Beauty perishes, but modesty, real modesty, never decays.

AGRICULTURAL CONDITION OF OUR Country.

A perusal of Mr. John Jay's Statistical View of American Agriculture, an address recently delivered before the American Geographical and Statistical Society, (which, by the way, forms probably the most satisfactory general compendium of American Agricultural statistics that we possess,) gives rather a discouraging impression of the progress of our national agriculture.

In many staple products the quantity raised has shown a marked decrease in 1850, (the date of our last census, from which Mr. Jay has obtained most of the purely statistical portions of his work,) from that raised in preceding years. Until the census of 1860 there can be no means of obtaining further statistics of the kind, and unless there has been a marked improvement during the last seven years, the condition of our agriculture is not very promising.

For instance, take the wheat crop: although it has not decreased in its actual amount, it has not increased in proportion to the increase of population. In New England its culture is rapidly declining, while in the middle States it is nearly stationary, and our chief supplies now come from the northwestern district. In New York the crop, in 1840, was over twelve millions of bushels, while in 1850 it was but nine millions—a decrease of twenty-five per cent. While our State is losing its pre-eminence in the production of the great cereal staple, Illinois and the Provincial States almost make up for it, and Chicago is fast becoming the most extensive granary in the world, already rivaling Odessa, Dantzig and St. Petersburg.

Referring again to the products of the entire country, without alluding to any particular State, we find that rye, oats, Irish and sweet potatoes, hay and tobacco have steadily decreased, while cotton, rice and wine have increased. Hops have increased at the rate of five hundred per cent, owing to the enormous consumption of lager-beer. Rice has increased at the rate of nearly three hundred per cent. In 1840, the cotton produced amounted to eight hundred millions of pounds, in 1850 to nine hundred and eighty millions, in 1855 to one billion and eight-hundred and eighty-eight millions.

But the great staple production of our country—far surpassing in amount even our famed wheat, cotton and tobacco—is Indian corn. Its cultivation has retrograded in no State, and the crop may be roughly estimated at four hundred millions of bushels in 1840, six hundred millions in 1850, over seven hundred millions in 1855, and fully eight hundred millions in 1856. Few people are probably aware of the value of our "Monda-min," although Professor Mapes has said the failure of the corn crop for three successive years would bankrupt the nation. "Entertainment for man and beast" might truly be painted on the gate of every cornfield in the country, for in the West corn is given largely to cattle and swine—the number of pigs fattened on it nearly equaling the number of inhabitants. It is exported to the West Indies, England and Ireland, used in sugar factories and distilleries, so that we owe our beef and pork, the Englishman owes his sugar and the Irishman his "dhrop o' whisky" to the great American "Mon-damin."

This is all very well, so far as it goes, but the fact remains that in other necessary products we are retrograding. While wine and lager-beer are increasing there is a decided decrease in the equally important products of wheat and potatoes. Though this is partially the effect of diseases incidental to the product itself, it is also, in a great measure, owing to the lack of agricultural laborers. While every avenue of trade and every mechanical occupation in our large cities is choked up with

competitors, the great agricultural fields of the West suffer for the want of cultivation.—*N. Y. Post.*

THE PHILOSOPHY OF RAIN.

To understand the philosophy of this beautiful and often sublime phenomenon, so often witnessed since the creation of the world, and essential to the very existence of plants and animals, a few facts derived from observation and a long train of experiments must be remembered.

1. Were the atmosphere everywhere, at all times, at an uniform temperature, we should never have rain, or hail, or snow. The water absorbed by evaporation from the sea and the earth's surface would descend in an imperceptible vapor, or cease to be absorbed by the air when it was fully saturated.

2. The absorbing power of the atmosphere, and consequently its capability to retain humidity, is proportionably greater in warm than in cold air.

3. The air near the surface of the earth is warmer than it is in the region of the clouds. The higher we ascend from the earth, the colder do we find the atmosphere.—Hence the perpetual snow on very high mountains in the hottest climate. Now, when from continued evaporation the air is highly saturated with vapor—though it be invisible and the sky cloudless—if the temperature is suddenly reduced by cold currents descending from above, or rushing from a higher to a lower latitude, its capacity to retain moisture is diminished, clouds are formed, and the result is rain. Air condenses as it cools, and, like a sponge filled with water and compressed, pours out the water which its diminished capacity cannot hold. How singular, yet how simple, the philosophy of rain! What but Omnipotence could have devised such an admirable arrangement for watering the earth?

THE SURE ROAD TO A COMPETENCY.—Not one man in five hundred will make a fortune. But a competence and an independent position are within the reach of most men. This is obtained most surely by patient industry and economy. If a man has ordinary talents and ability in any profession or business, or trade, he can, by pursuing an economical, persevering course, be pretty sure of finally obtaining an independent position in life. Let his expenses fall below his income. Let him live cheap, very cheap if necessary; but let him be sure and make his income more than his expenses. It can be done in almost all cases, notwithstanding the positive denial of ever so many housekeepers. A man may not have more than three hundred dollars a year, and have a family as large as John Rodgers, and he can find the way to live comfortably, and lay up something into the bargain. There is much, nay all in knowing how the thing is done; and that is the very thing people who are going to make money, have got to learn. It is wonderful how few wants we have, and how little it takes to give us genuine happiness. If we could get rid of our artificial, senseless and expensive way of living, we should find ourselves better off in purse, in prospect and in heart. Let any one who has any ambition to go ahead in life, try the experiment this year, and see how much virtue there is in economy. Make your expenses less than your income, and see how much you will have gained, not only in money, but in the feeling that you are in the condition which the Yankee denominated "fore-handed." Try it this year.

 "If you marry," said a Roman consul to his son, "let it be a woman who has judgment and industry enough to get a meal of victuals, taste enough to dress meat, pride enough to wash before breakfast, and sense enough to hold her tongue."

THE LONG AGO.

Oh! a wonderful stream is the river Time,
As it runs through the realms of tears,
With a faultless rhythm and musical rhyme,
And a broad'ning sweep, and a surge sublime,
That blends with the ocean of years.

How the waters are drifting like flakes of snow,
And the summers like buds between,
And the year in the sheaf—so they come and they go
On the river's breast, with its ebb and flow,
As it glides in the shadow an I. sheen.

There's a magical isle on the river Time,
Where the softest of airs are playing;
There's a cloudless sky and a tropical clime,
And a song as sweet as a vesper chime,
And the Junes with the roses are staying.

And the name of this isle is the Long Ago,
And we bury our treasures there;
There are brows of beauty and bosoms of snow—
There are heaps of dust—but we loved them so!
There are trinkets and tresses of hair.

There are fragments of song that nobody sings,
And a part of an infant's prayer,
There's a lute unswept, and a harp without strings,
There are broken vows, and pieces of rings,
And the garments that she used to wear.

There are hands that are waved when the fairy shore
By the mirage is lifted in air;
And we sometimes hear, through the turbulent roar,
Sweet voices we heard in the days gone before,
When the wind down the river is fair.

Oh! remembered for aye be the blessed isle,
All the days of life till night—
When the evening comes with its beautiful smile,
And our eyes are closing to slumber awhile,
May our "greenwood" of soul be in sight.

BOOKS AND PICTURES.

It is natural (says the editor of the *Southern Banner*,) for any one who is connected with the press, to say occasionally a good word for Books. They cannot supply the place of newspapers in giving the current events of the day, but they belong to the same literary army, which is fast quelling the power of ignorance and superstition. He who has selected a good library, feels that he has gathered around himself a crowd of associates. Some of these, venerable for their age and honored for their wisdom, are his instructors, who speak to his eye as effectually as the most learned lecturer could to his ear. Others are his friends, varying in their disposition, and in the subjects of their quiet conversation. There is the Poet, who tells him of his strange fancies, his wild imaginings, his yearning love, or his indolent contentment. There is the Orator, who glows again with the passions that characterized his speeches in the pulpit, the bar, or the forum, and transfers to the pale, shroud-like pages where his thoughts lie buried, the life and fire of his former earnestness. There, too, are the jolly good fellows, who recount their queer adventures, emit flashes of wit, or dwell with satisfaction on the remembrance of some joke, or relate the pranks of their reckless, rollicking youth, until you

laugh outright, and look around, half expecting to see the room thronged with mirthful boon-companions.—This is too long an introduction, however, to the extract we wish to quote. Although we have no fondness for the religious or political tenets of *Henry Ward Beecher*, we think we cannot be charged with heresy, if we in dorse the following opinions, to which he gives utterance in the *New York Ledger*:

"We know of many and many a rich man's house where it would not be safe to ask for the commonest English classics. A few garish annuals on the table, a few pictorial monstrosities, together with the stock of religious books of his 'persuasion,' and that is all! No range of poets, no essayists, no selection of historians, no travels, no biographies—no select fictions or curious legendary lore; but then the walls have paper on which cost three dollars a roll, and the floors have carpets that cost four dollars a yard! Books are the windows through which the soul looks out. A house without books is like a room without windows. No man has a right to bring up his children without surrounding them with books, if he has the means to buy them. It is a wrong to his family. He cheats them! Children learn to read by being in the presence of books. The love of knowledge comes with reading, and grows upon it. And the love of knowledge, in a young mind, is almost a warrant against the inferior excitement of passions and vices.

"Let us pity these poor rich men who live barrenly in great bookless houses! Let us congratulate the poor that, in our day books are so cheap that a man may every year add a hundred volumes to his library for the price of what his tobacco and his beer would cost him. Among the earliest ambitions to be excited in clerks, workmen, journeymen, and, indeed, among all that are struggling up in life from nothing to something, is that of owning, and constantly adding to a library of good books. A little library, growing larger every year is an honorable part of a young man's history. It is a man's duty to have books. A library is not a luxury, but one of the necessities of life."

Another writer, speaking of Pictures, truly remarks:

"A room with pictures in it, and room without pictures, differ by nearly as much as a room with windows and a room without windows. Nothing, we think, is more melancholy, particularly to a person who has to pass much time in his room, than blank walls with nothing on them; for pictures are loop-holes of escape to the soul, leading it to other scenes and other spheres. It is such an inexpressible relief to a person engaged in writing, or even reading, on looking up, not to have his line of vision chopped off by an odious white wall, but to find his soul escaping, as it were, through the frame of an exquisite picture, to other beautiful and perhaps heavenly scenes, where the fancy for a moment may revel, refreshed and delighted. Thus, pictures are consolers of loneliness; they are a sweet flattery to the soul; they are a relief to the jaded mind; they are windows to the imprisoned thought; they are books; they are histories and sermons, which we can read without the trouble of turning over the leaves."

 Hope is very falacious, and promises are more valuable than the gifts of fortune, and it seldom frustrates us without assuring us of recompensing the delay by great bounty.

 Men should remember that sometimes the greater sound has the less sense; as, though four is more than three, a third is more than a fourth.

CASHMERE GOATS FOR TEXAS.

This afternoon' Mr. Aaron Roff, of Georgia, will leave here on the steamboat R. W. Powell for Red river, on his way to Cherokee county, Texas, there to deliver to Col. Yokum, a well-known citizen of that section of country, three goats of the Cashmere shawl species, purchased by Col. Yokum of Mr. Richard Peters, of Atlanta, Ga. One of these goats is a buck of pure blood; the other two are ewes of three-fourths to seven-eighths pure blood. Mr. Roff has also two other animals of the same breed, which he will exhibit or sell, as most convenient.

The Cashmere goat was introduced into this country in 1849, by Dr. J. B. Davis, of South Carolina, who obtained them at much expense and trouble while he was employed by the Sultan, in Turkey in Asia. They are not the Thibet shawl goat or the Angora goat, and naturalists in this country have decided to call them the Cashmere Goat. From the pure, white color, and silky fineness and great length of their fleece—its value, eight dollars a pound, the animal yielding four or five pounds—their adaptability to our climate, without deteriorating—their crossing readily with the common goat and retaining still their peculiar and valuable characteristics—their needing little care; their vigorous frame and frugal habits; the delicacy and nutritiousness of their flesh; their capability of defense against dogs or other animals—they must prove the most valuable variety of the goat that can be introduced into this country.

Mr. Peters, the proprietor of the Devon farm in Georgia, has been eminently successful in crossing the pure blood Cashmere bucks with the common goat, and the fleece of even the fourth crosses is wonderfully fine, soft, light, long and white. We can well understand that the famous Cashmere shawl, made of precisely this wool, should be of such beautiful texture and durable qualities.

Several animals of this valuable breed are already in Texas, and with the admirable capabilities of that State for raising sheep and goats of the finer qualities, every addition of this kind to its stock resources, is worthy of notice.—*N. O. Picayune, March 19.*

HORSE HOE---CORN IN BULK---CROPS, &c.

EDITOR SOUTHERN CULTIVATOR.—In your remarks upon plantation work, in May number of the *Cultivator*, you say cultivate Corn with "cultivator, harrow or a horse hoe, &c." Will you please tell me what a "horse hoe" is, and, if you can, insert a cut of it in the *Cultivator*. By a "horse hoe," do you mean the sweep plow?

I have watched, with some interest, the several rules you publish for measuring corn, and below find a comparison of three of the most important, showing so slight a difference, that either will answer the purpose of the planter. Each of them are for corn in the shuck:

1st. 10 feet by $10 \times 10 - 12 = 83$ bbls $x 5 = 415$ bushels—1.3 off for shuck and cob = 277 bushels shelled corn.

2d. Western rule— $10 \times 10 \times 10 \times 5 - 2 - 3 = 56$ bbls. $x 5 = 280$ bushels shelled corn.

3d. The above in inches— $120 \times 120 \times 120 - 6171 = 280$ bushels shelled corn.

I do not give the fractions, as unnecessary. The first rule I cut from a newspaper, and the 1.3 off for shuck and cob is an addition of my own, and the other two are taken from the *Cultivator*.

The crops in this section are much behind those of last year, at the same time, though the corn crops are a good stand, look green and are now growing off. The cotton looks badly and I hear of bad stands far and near—some had to be planted over, as mine is and I had to do. Last year I finished hoeing my cotton the first time May 6, and this year the same time, I will have just 1-4 of my crop chopped out. There is the same difference in the cotton.

Truly, REBEK.

Hopehazy, [Baker Co., Ga.] May 3, 1859.

REPLY.—The "Horse Hoe," of Knox, and others, is an improved cultivator—very little like the "sweep plow." We have no cut of it, and can hardly describe it, so as to give you a correct idea of it. We consider it a very superior implement, for killing weeds and keeping the surface level and mellow. It may be had at the Agricultural Implement Stores in this city and elsewhere—price, about \$7 to \$9 —ED.

USEFUL HINTS TO YOUNG MEN.

How many young men ignorantly deny themselves a fortune. There is scarcely a young man of good sense in this city who cannot save \$100 easily from his annual earnings, and, if he will forego cigars, billiards and juleps, he can save double that amount. Figures sometimes produce almost incredible results. Thus, for instance, if a young man, upon his twentieth birth-day, will invest \$100 in any stock, paying ten per cent., and annually thereafter will invest the same amount and the accumulation of interest, he will be worth, when he is thirty years old, \$1,753; when forty years old, \$6,300; when fifty years old, \$18,150; when sixty years old, \$48,700.

How simple, then, is the plan by which a youth of the present day can pass his old age in comfort and luxury. He has only to regulate his expenses so as to save one hundred dollars each year from his income. If the amount saved be larger, then the sum total will be increased in the same proportion.

Only think of it, that \$500 saved annually and invested in ten per cent. stock will amount, in forty years, to \$243,500. One million invested in the same way for ten years will amount to \$2,593,600; in twenty years, to \$6,826,800; in thirty years, to \$16,384,628; in forty to \$45,250,338. No wonder, then, that the Rothschilds have amassed such boundless wealth.—*Baltimore American.*

Could every man be always impressed with the solemn fact that his life is short, and the labor which he ought to accomplish great, he would more than double his present rate of intellectual attainments and material progress.

Could every man be always impressed with the solemn fact that his life is short, and the labor which he ought to accomplish great, he would more than double his present rate of intellectual attainments and material progress.

COTTON GROWING ABROAD.—All efforts to raise our great staple in other countries have, thus far failed, and the South still retains her pre eminence. We learn from a Paris correspondent of the New Orleans *Picayune*, that the French Government has decided that hereafter the premiums paid for the cultivation of cotton in Algeria shall be abolished. Although the *Moniteur* boasts that while 1,014,000 pounds of cotton were grown in Algeria in 1854, and 1,560,000 pounds in 1857, and the crop in 1858 will be still larger, there seems to be little question the experiment has proved a costly failure, and the Government regards money spent on this crop as treasure thrown away. The decree hints the Government will soon cease to buy the cotton grown in that colony; at present it is under obligations to buy all the cotton raised there. Therefore, in a year or two this experiment of the French will share the fate of their other costly experiments.

RAISE FINE FRUIT.—A contemporary very truly says: "Fruits are no unimportant part of the living of a family. We wish every farmer would lay his plans in season and take time by the foretop, for improving in this branch of farm industry. If he lives near a market it is the most profitable; and wherever he may be, there is a refining influence in fruit culture, which should not be overlooked. There is solid comfort in it. There is an innocent luxury. When the children are far away, and have built them other homes, they will remember the old homestead, but no place in it, except the place by the old fire-side, where a loving mother used to sit and mend their clothes and darn their stockings, and bear patiently with their childish pranks, and teach the young idea, will be remembered with more longings to return, than where their childhood's lips smacked the fruit of a favorite tree. Apples, early and late, for summer, autumn, winter, and spring, pears, grapes, peaches, quinces, plums, cherries, apricots, gooseberries, currants, and strawberries should be the delight of every farm, unless peculiarity of climate would exclude some of these, and many others should be introduced if soil and climate favor."

CULTIVATE CORN SHALLOW.—A writer in the *True Issue* says:

"After the corn joints, the surface should only be stirred without breaking the feeding radicles of the plant.

"Finally, cultivate in such a manner that the soil shall be as level as possible—by all means avoid putting a 'bed to your corn.' This leaves a water furrow to drain the land, and expose a large area of surface to the action of the sun and wind. If you have a piece of wet land, you bed it up to drain it, and act sensible; and if you bed your corn it certainly has the same effect upon the soil."

TO DESTROY ANTS.—It so happened that a piece of camphor was laid in a drawer containing sugar, which was infested by ants. On opening, it a few days afterwards the bottom of the drawer, was strewn with ants. The experiments was repeated with success.

 Some malignant old men seem to grow humane as they grow childish. The softening of the brain is accompanied by a softening of the heart.

A GOOD WIFE WHO FOUND "GOOD IN EVERYTHING."—A farmer was once blessed with a good-natured, contented wife; but it not being in the nature of man to be satisfied, he one day said to a neighbor, he really wished he could hear his wife scold once, for the novelty of the thing. Whereupon his sympathising neighbor advised him to go to the woods and get a load of crooked sticks, which would certainly make her as cross as he could desire. Accordingly the farmer collected a load of the most ill-shaped, crooked, crockety materials that were ever known under the name of fuel. This he deposited in its place, taking care that his spouse should have access to no other wood. Day after day passed without a complaint. At length the pile was consumed. "Well, wife," said he farmer, "I am going after more wood; I'll get another load just such as I got last time." "Oh, yes, Jacob," she replied, "it will be so nice if you will; for such crooked, crochety wood as you brought before, does lie around the pot so nicely."

COTTON IN THE SEED.—A "Farmer" writes to the *News* that a new trade is about to be opened in Old Caney—the shipment of cotton, baled in the seed, and sent to Boston or other points for ginning and manufacturing purposes—the seed to pay for the operation and all expenses, in oil, cake, and in soap made from the oil cake, and paper made from the lint, obtained by re-ginning the seed.

Mr. Jonah L. Grant, of Worcester, Mass., is now here making arrangements for this Boston company, and will pay for the cotton according to its quality, from Low Ordinary to Middling and Fair—only deducting the weight of seed and transportation to Galveston. Say for 2000 lbs. seed cotton, he deducts 1400 lbs. of seed at Galveston in lieu of ginning and baling.—*Christian Advocate*.

COMPOST FOR LIGHT LANDS.—When the soil is of a light, arenaceous character, with a free descent and a tendency to part easily with its moisture, the best material that can be used for its amelioration and enrichment, is a compost of which the base is common clay. One cartload—thirty bushels—of this earth, with about the same quantity of muck, four bushels of unslacked, or caustic lime, two of gypsum, and one of salt, well mixed by frequent turnings, will be found one of the most efficient and valuable applications that can be made to light lands. *FARMER,*

[in *Portland Transcript*.]

ANTIDOTE FOR RATTLESNAKE POISON.—The Medical Journal says the following is an infallible cure for the poison of a rattlesnake bite:

Four grains of the Iodate of potash;
Two grains of corrosive sublimate;
Five drachms of bromine.
Mix together, and kept the mixture in a glass-stopped vial, well secured.

Ten drops of this mixture, diluted with a tablespoonful of brandy, constitute a dose; the quantity to be repeated, if necessary, according to the exigencies of the case.

HAPPY COMBINATION.—There is nothing purer than honesty, nothing sweeter than charity, nothing warmer than love, nothing brighter than virtue, and nothing more steadfast than faith. These united in one mind, form the purest, the sweetest, the richest, the brightest, the holiest, and the most steadfast happiness.

 How quietly might many a one live if he could care as little for the affairs of others as he does for his own.

THE MAN OF ENERGY.

"Honesty and energy are the handmaids of success."

ENERGY may be said to be one of the most important elements of character. In some sense, it influences, controls and rules the world. No great undertaking can be achieved, no mighty work can be consummated, no vast enterprise can be carried into successful effect without its aid and agency. In matters of love as well as in matters of war, it is equally potent. The faint-hearted are rarely energetic, and hence they are sure to lag behind, and be out-distanced by their competitors and rivals. The individual who is listless, inanimate and indifferent, apathetic, who does nothing, yet is constantly expecting something to turn up, something that will redound to his advantage and open the pathway to independence, is doomed to many a bitter disappointment. It is wisely ordered by Providence that, however we may be gifted in person, or mind—however we may have been favored by a patrimony, however bright our hopes and expectations, as we enter upon the arena of the busy world, we are sure to fail by the wayside, be tripped up and prostrated, unless we exercise the faculties that have been given to us—resist the machinations of the crafty, the designing and the unprincipled—in brief, manifest a due degree of firmness, determination and energy. Ever and anon we are amused by the promulgation, on the part of the visionary, of some plausible and tempting scheme. It may have all the elements of probability, abounding with fascination, and hold out buoyant and encouraging inducements to the active, the pushing and the persevering. And yet, without energy—constant, untiring and indomitable—it will amount to a mere bubble.

If we are asked for the true secret of the motive power, the active principle of success, in this life, and were confined, for our answer, to a single word, that word would be "energy." Men of vivid imaginations, and poetic fancies, dreamers, enthusiasts and fanatics, are constantly starting schemes and undertakings which, at the first glance, are calculated to captivate. But how rarely do they enter into such movements in a truly practical spirit and bring to their aid that degree of energy which is so essential to success! Thousands of our fellow-creatures are self-deceived. They do not look sufficiently before they leap. They do not examine the entire ground, and calculate all the chances, before they risk their judgment, their means, their reputation and their time. Nay, they do not look all the difficulties calmly in the face, and determine at the onset to wrestle with and overcome them. On the contrary, they struggle on for a few days or for a few weeks, and because they cannot realize all that they fancied, they become dispirited, intimidated and abandon what they are then disposed to consider a delusion, for some other scheme. In brief, they either lack forethought at the outset, and thus commit a mistake in the beginning, or they are deficient in energy, and thus are sure to fail. The struggles of the commercial and business world are full of anxiety and care. A thousand temptations beset us, and a thousand difficulties lie in our way. This is the fate of man. He is born to trouble as the sparks fly upward. But a first disappointment, either of the head or the heart, the falsehood of a woman, the treachery of a friend, or the failure of an enterprise, should never induce us to despair. Adversity is sometimes only a blessing in disguise, for it tests, tries, and fortifies us for future struggles and vicissitudes. When, however, convinced that we are treading the path that sooner or later must lead to fame and fortune, or that we are seeking a conquest which can be achieved only by the patient work of years, energy, untiring, unwavering and unfaltering energy, is the great essential.

Look around, gentle reader, and you will find this illus-

trated nearly every day you live. The cool, the cautious, the resolute and energetic are constantly achieving triumphs. All that they touch seems to turn to gold. They may be down to-day, but they will be up to-morrow. No reverse, no misfortune can depress them. They have the will, the courage and the perseverance, and thus they are bound to succeed. Occasional disasters will of course come, reverses will overtake, and disappointments will attend them. But these they anticipate as part and parcel of the great chapter of life, as not only incidental but as inevitable, and they therefore rouse themselves for a fresh struggle, determined again. Energy, assisted by purity of motive, integrity of character, and firmness of purpose, is like the lever of Archimedes; for we repeat, properly applied, it will move the world.—*Pennsylvania Inquirer.*

SHEEP IN TEXAS.

THE Texas *State Gazetteer* says:—It is doubtless true that the great sheep raising country of the United States is by nature, in Western Texas. A writer in the *News* speaks of the high, elevated lands, back from the Rio Grande, in Webb, Maverick and Kinney counties extending over towards the Nueces, as having an abundance of the richest grass in winter—the only drawback is water, which is being procured by Artesian wells. The writer adds:

"A dry climate always for sheep. The most fastidious cannot complain as to the character of the country under consideration. It is a little too dry for some things I could name, but I am now speaking of sheep, and so I have just the country I was looking for, and having found it, let me say to you that clear, pure streams of water, gurgling springs, and rivulets from the hills, never flowed with more beauty nor regularity than along the foot of what are called the Mountains here, but nothing more than the first spurs which point down towards the level country, and extend from the Cross Timbers towards the Rio Grande; but for the present let me call your attention to the Medina, the Frio, the Uvalde, the Leona, and a thousand lesser branches which flow into the Rio Grande, are the San Felipe, San Pedro, the Las Moras, Zoquate, Dolores, and innumerable others, which, although flowing through an arid country, are nevertheless supplied from a deeper fountain which can never fail, and which, when penetrated by the wisdom and energy of the State, will develop new sources of inexhaustible wealth, now hidden from the eye, but which will be brought to light as sure as our freedom exists and our liberties are maintained. Can it be possible that such a body of land was created for nought, with evidence surrounding it of inexhaustible power? I believe not. And I expect to see the day when those hills will be dotted over with the cottages of the husbandman, and the flocks and herds, which will give a currency to the woollen manufactures of the old world, as well as of our own country."

COOKED FOOD FOR SWINE.—Samuel H. Clay, of Kentucky, has been experimenting in feeding several lots of hogs, changing them from raw to cooked, and from ground to unground food, with the following results: One bushel of dry corn made 5 lbs. and 10 oz. of live pork; 1 bushel of boiled corn made 14 lbs. and 7 oz. of pork; 1 bushel of ground corn, boiled, made, in one instance, 16 lbs. 7 oz., and in another, nearly 18 pounds of pork. Estimating corn at 90 cts. a bushel, and pork at 8 cents a pound, we have, as the result of 1 bushel of dry corn, 45 cents worth of pork; of 1 bushel of boiled corn, 110 cents worth of pork; and of 1 bushel of ground corn, 136 cents worth of pork.

DECORATING THE GRAVE.

THERE is a kind of pathos touching tenderness of expression in these sweet and fragrant emblems of affection, which is calculated to perpetuate a kind of soothing sympathy between the living and the dead. They speak of cords of life too strong for even the grave to break assunder. The practice, no doubt, gave rise to the ancient custom which prevailed in the East of burying in gardens, and is one which conduces to the gratification of the best feelings of our nature. It prevailed generally in and about the Holy City, and also among the Medes, Persians, Greeks and Romans. The Persians adopted it from the Medes, the Grecians from the Persians. In Rome, persons of distinction were buried in gardens or fields near the public roads. Their monuments were decorated with chaplets and palms, and garlands of flowers. The tomb of Archilles was decorated with amaranth; the urn of Philopeas was covered with chaplets; the grave of Sophoeels with roses and ivy;—that of Anacreon with ivy and flowerets. Baskets of lilies, violets and roses, were placed in the graves of husbands and wives—white roses on unmarried females. In Java the inhabitants scatter flowers over the bodies of the friends; in China, the custom of planting flowers on the graves of their friends is of very ancient date, and still prevails.

In Tripoli, the tombs are decorated with garlands of roses, of Arabia jasmine, any orange and myrtle flowers. In Schwyz, a village in Switzerland, there is a beautiful little church in which almost every grave is covered with pinks. In the elegant church yard in Wirfin, in the valley of Salza in Germany, the graves are covered with oblong boxes, which are planted with perennial shrubs, or renewed with annual flowers and others are so dressed on *fete* days. Suspended from the ornaments of recent graves are little vases filled with water, in which the flowers are preserved fresh. Children are often seen dressing the graves of their mothers, and mothers wreathing garlands for their children.

A late traveller, on going, early in the morning, into one of the grave-yards in the village of Wirfin, saw six or seven persons decorating the graves of their friends, and on some who had been buried twenty years. This custom also prevails in Scotland and North and South Wales. An epitaph there says:

"The village maidens to her grave shall bring
The fragrant garland, each returning spring;
Selected sweets! in emblem of the maid,
Who underneath this hallowed turf is laid."

In Wales, children have snow-drops, primroses, violets, hazel-bloom, and willow blossoms on their graves. Persons of mature years have tansy, box, ivy and rue. In South Wales, no flowers or evergreens are permitted to be planted on graves but those which are sweet scented. Pinks, polyanthus, sweet-williams, gilly flowers, carnations, mignonette, thyme, hyssop, camomile and rosemary are used.

In Capul, burying-grounds are held in veneration, and were called *cities of the silent*. The Jews called them *houses of the dead*. The Egyptians visited the graves of their friends twice a week, and strewed sweet basil on them and do so to this day.

While the custom of decorating graves and grave-yards with flowers and ornamental trees and shrubs has prevailed so long and extensively among ancient and civilized nations, some of the American aborigines will not permit a weed or blade of grass, nor any other vegetable, to grow upon the grave of their friends.

 A fool in a high situation is like a man on top of a monument—everybody appears small to him, and he appears small to everybody.

LIGHTNING---CHEAP CONDUCTING RODS, &c.

A CORRESPONDENT of "*The Country Gentleman*," says:

"Numerous experiments have been made, that fully prove our earth's atmosphere to be filled with electricity. Kites, vertical metallic rods, and other appliances, are used to conduct the fluid silently and harmlessly to the ground, when found in a normal and quiet condition. It is only when disturbed by currents and counter-currents of wind and rain, that it becomes alarming or dangerous. When the fluid is forced into collections of greater or less capacity, by the wind, and surrounded by dense clouds saturated with water, which is a powerful conducting medium, we see some of the most brilliant, beautiful and marvelous phenomena to be met with in the whole study of the physical sciences. The sudden transit of the vivid flash from cloud to cloud, and the reverberating echo of the rolling thunder when at a distance, only inspire us with admiration and wonder, without exciting our fears. But when the sweeping storm approaches our dwellings, agitating and tossing the electricity of the air into a fearful state of excitement, and lighting up the whole heavens with electric fires, and the close proximity of the crash of appalling thunder warns man to seek a place of safety, he shows his total ignorance of the facts and laws of electricity, who betakes himself to the very place where danger is most impending. If taught in our elementary schools, and made familiar by articles and discussions in our family newspapers—no person would, in case of a thunder storm, take shelter under a high tree, or sit near the fire-place, or an open door or window, or in contact with the bell wire; but would seat himself in the middle of the room, as far from the chimney as possible, and at a point the greatest distance from the highest point of the building.

"If a rain cloud, surcharged with electricity, is forced down low enough to come in contact with any obstacle, as a tree, a house, or a barn, the whole volume of electric fluid is let loose, and its gigantic and terrific fury is seen upon everything in its path to the earth. Therefore, in order to protect our houses perfectly, there should be no high point left without a conductor. It is a mistake to consider a house with two or more chimneys, safely protected with one rod. Each chimney, observatory, or high point of any building should have a conductor extending up, an invitation to any surplus accumulation to pass silently down, or when at times the whole mass is stirred up to madness by the raging tempest, to be ready to catch the death dealing bolt and conduct it safely to the ground. Persons feeling unable to purchase as many conductors as they need at five or ten dollars a piece, can supply themselves at from fifty cents to one dollar each, that will be fully equal if not better than those hawked about the country by peddlers, who are making fortunes at the expense of farmers and others, who are not aware of the fact that soft iron wire in one continuous length, is a much safer conductor than even a larger rod put together in different lengths by links or screws. The cheapest and perfectly safe conductors, are made from 1-4 inch wire, that costs less than half a cent per foot. Sharpen one end with a file, and allow it to project three feet above the chimney or highest point of the building, and fasten it securely with staples around glass or bone insulators. Let the lower end terminate in the well or cess-pool if possible; if neither are convenient, dig down until it will always rest in damp earth, pointing out from the building. The cheapest and strongest insulators are made by sawing off, at proper lengths, the leg bone of a sheep, or other animal of suitable size."

LARGE COTTON PLANTERS.

Some time since, a paragraph was published, giving some account of the cotton crop of the late Col. Bond of Georgia, which amounted last year to 2,100 bales, and was the largest sent to market by any planter in that State. A Vidalia correspondent of the *Free Trader* (Natchez) contrasts the planters of Mississippi and Louisiana with our Georgia planter, as follows:

There are half a dozen planters in Concordia parish, Louisiana, as also many more in Mississippi, that make a far higher mark than this. Not to make a thing invidious, the names of A. V. Davis, Esq., of Concordia parish, who makes all his cotton there, chalks up several hundred bales above the Georgia planter; so does L. R. Marshall, Esq., in the State of Louisiana, raising in that State alone more than three thousand five hundred bales; so of John Routh, Esq., of Hard Times, full as much if not more; so did Frederick Stanton, Esq., but a few weeks deceased, raise twenty-eight hundred bales the present year—all in Concordia parish—and even more than this figure in 1855—all in Louisiana; and there are numerous others that come up, or nearly so, to the Georgia highest notch. For instance, L. R. Marshall, residence Natchez, a planter in three States, Louisiana, Mississippi and Arkansas, is more than a four thousand bale producer; so is Dr. Stephen Duncan more than a three thousand bale grower, in the State of Mississippi, besides being an opulent planter of Louisiana—more than four thousand bales in all.

The great estates of the two princely planters of this region, the late Samuel Davis and Francis Surget, Esqrs., always produced from three to five thousand bales each until their deaths divided the estate among the heirs.—*N. O. Picayune.*

HOW TO TEST THE QUALITY OF WOOL.—A very experienced raiser of wool, gives the following certain test of fine wool. The wavy folds of wool have been noticed by every one. Take a lock of wool from the sheep's back and place it upon an inch rule. If you can count from thirty to thirty-three of the spirals or folds in the space of an inch, it equals in quality the finest electoral or Saxony wool grown.

Of course, when the number of spirals to the inch diminishes, the quality of the wool becomes relatively inferior.

Many tests have been tried, but this is considered the simplest and best.

Cotswold wool and some other inferior wools do not measure nine spirals to the inch.

With this test, every farmer has in his possession a knowledge which will enable him to form a correct judgment of the quality of all kinds of wool. There are some coarse wools, which experienced wool growers do not rank as wool, but as hair, on account of the hardness and straightness of the fibre.—*Texas "State Gazette."*

RAIN.—Every inch of rain falling in the course of a year, is equal to a weight of rather more than 100 tons of water per each imperial acre. The mean annual quantity of rain in Detroit is 28,300 inches; equal to nearly 2900 tons of water falling annually on each acre of land. At Dearbornville Arsenal, Mich., the mean annual rain is only 21,610, the smallest quantity, or the driest place, given in the *Army Meteorological Register*, for the whole United States. The highest mean, or wettest place is West Point, N. Y., where 64,670 inches of rain is the annual mean quantity, equal to 6467 tons water on each acre.—*U. S. Jour.*

THE BEST MODE OF PREPARING FOOD FOR Cattle.

THE custom is very general to feed grain in an unprepared state. The economy of this practice is more than doubtful. For a long time, the advantage of ground over unground has been conceded. Of late, numerous experiments have been made of cooking it for horses, hogs and cattle, and all with very encouraging results.

Mr. Samuel Hale, of Millet Creek, Ohio, who feeds about one thousand bushels of corn annually, gives the result of his experience in a recent number of the *Ohio Farmer*. For several years his practice was to feed in the ear, but the results were very unsatisfactory.

He procured a "Little Giant Stock Mill," and commenced grinding his corn in the ear, and found he never wintered his stock so cheap and so well before. The third winter of his experimenting he not only ground the cob, but cooked it in an "agricultural steamer." This was fed in the form of mush to his horses, hogs, cows, and fattening cattle. To the latter he fed about seven lbs. a head per day, of corn and cob meal.

"The result," says he, "fully satisfied me that one-half the corn fed in this way would put more flesh upon horned-cattle, hogs, or horses, than double the quantity fed in the ear."

This is about the kind of testimony given by all who have tried cooking food for animals. Such being the case it is well worthy the consideration of farmers whether it will not pay to cook their food, and thereby make the product of one acre go as far as the product of two, fed in the ordinary way.

FEEDING AND WATERING HORSES—DIGESTION.—We have always believed that absolute rest and quiet right most favorable to the digestion of food in animals; but the closing sentence of the following paragraph conflicts with that opinion. We require stronger evidence, still, to convince us that active exercise immediately after feeding, is conducive to healthy digestion and assimilation of food:

"Some curious experiments have been made at the Veterinary school at Alfort (just outside Paris) by order of the Minister of War, to ascertain the endurance of horses, as in a besieged town, for example. It appears a horse will live on water alone five and twenty days; seventeen days without eating or drinking; only five days if fed but unwatered; ten days if fed and insufficiently watered. A horse kept without water for three days drank 104 pounds of water in three minutes. It was found, that a horse taken immediately after 'feed' and kept in the active exercise of the 'squadron school,' completely digested its 'feed' in three hours; in the same time in the 'conscript school,' its food was two thirds digested; and if kept perfectly quiet in the stable, its digestion was scarcely commenced in three hours."

STOCK DESTROYED.—There has been a much greater destruction of stock by the high water this spring than is usually supposed. At the first rising of the water, though nearly every one anticipated an overflow, yet a great many left their stock in the bottoms with the design of trusting to chances, or of seeing to it *after a while*, and thus the large destruction. We had supposed that the suffering from last spring's flood had taught our people a lesson of warning that never would be forgotten, but thus it is with human nature, it never urges to effectual action until the danger is upon us with its goading sting.—*Madison (Ark.) Journal*, 2d April.

Domestic Economy and Recipes.

FOOD CURE.

The following article from a late number of *Hall's Journal of Health*, will be found valuable for reference. Some of the items have already appeared in our columns:

Ripe fruits and berries, slightly acid, will remove the ordinary diarrhoeas of early summer.

Common rice, parched brown like coffee, and then boiled and eaten in the ordinary way, without any other food is, with perfect quietude of body, one of the most effective remedies for troublesome looseness of bowels.

Some of the severest forms of that distressing ailment called dysentery—that is, when the bowels pass blood, with constant desire, yet vain efforts to stool—are sometimes entirely cured by the patient eating a heaping table spoonful, at a time, of raw beef, cut up very fine, and repeated at intervals of four hours, until cured, eating and drinking nothing else in the meantime.

If a person swallows any poison whatever, or has fallen into convulsions from overloading the stomach, an instantaneous remedy, more efficient and applicable in a large number of cases than any half-a-dozen medicines we can now think of, is a heaping tea-spoonful of common salt and as much ground mustard, stirred rapidly in a teacup of water, warm or cold, swallowed instantly. It is scarcely down before it begins to come up, bringing with it the remaining contents of the stomach; and lest there be any remnant of poison, however small, let the white of an egg, or a teacupful of strong coffee, be swallowed as soon as the stomach is quiet, because these very common articles nullify a larger number of virulent poisons than any medicines in the shops.

In case of scalding or burning the body, immersing in cold water gives entire relief, as instantaneous as the lightning. Meanwhile, get some common dry flour, and apply it an inch or two thick on the injured part; the moment it emerges from the water, and keep sprinkling on the flour through anything like a pepper box cover, so as to put it on evenly. Do nothing else, drink nothing but water, eat nothing until improvement commences, except some dry bread softened in some very weak tea of some kind. Cures of frightful burnings have been performed in this way, as wonderful as they are painless.

Erysipelas, a disease often coming without pneumonia, and ending fatally in three or four days, is sometimes promptly cured by applying a poultice of raw cranberries pounded, and placed on the parts over night.

Insect bites, and even those of a rattlesnake, have passed harmless, by stirring enough of common salt in the yolk of a good egg to make it sufficiently thin for plaster, to be kept on the bitten parts.

Costive bowels have an agreeable remedy in the free use of tomatoes at meals, their seeds acting in the way of the seeds of white mustard or fust, by stimulating the coats of the bowels over which they pass, in their whole state, to increased action. A remedy of equal efficiency, in the same direction, is cracked wheat—that is, common white wheat grains, broken into two or three pieces, and then boiled until it is as soft as rice, and eaten mainly at two meals of the day, with butter or molasses.

Common sweet cider, boiled down to one-half, makes a most excellent syrup for coughs and colds for children, is pleasant to the taste and will keep throughout the year in a cool cellar.

In recovering from an illness, the system has a craving for some pleasant acid drink. This is found in cider which is heated on the fire as soon as made, and allowed to come to a boil, then cooled, put in casks and kept in a

cool cellar. Treated thus, it remains for many months as good as the day it was made.

We once saved the life of an infant which had been inadvertently drugged with laudanum, and was fast sinking into the sleep which knows no awaking, by giving it strong coffee, cleared with the white of an egg, a teaspoonful every five minutes, until it ceased to be drowsy.

HOO SUNG—How to Cook.—Our friend, LaTASTE, says, in a late number of his "Business Director":

"This vegetable, which is cultivated in all respects like the lettuce, has a more delicious flavor than the asparagus of which it is a substitute. It is to be eaten when young and tender, say when about two feet high. The stem, must be stripped of its leaves, cut up into lengths of four or five inches, tied in little packages, to keep them together, while cooking, and then dropped into boiling water, and allowed to boil for a few minutes, when it will be done. To serve on the table, make a sauce of a little butter and flour, seasoned to taste with pepper, salt and vinegar. This recipe will answer just as well for asparagus."

CURE FOR CATARRH.—The following simple remedy has been used with great success by one long and severely troubled with this annoying complaint:

Take, say, one part pulverized loaf-sugar to two parts pulverized camphor, and mix them thoroughly together, and use as often as the patient wishes in the form of snuff. This simple remedy, followed a few months, has effected a cure in the case above referred to, entirely beyond expectation. Should the camphor be too powerful or not enough so, reduce or add a small quantity, as the case may require, as it is desirable that the camphor should be the principal agent.

DELICIOUS DRESSING FOR ROAST FOWLS.—Spread pieces of stale but tender wheaten bread liberally with butter, and season rather highly with salt and pepper, working them into the butter a little; then dip the bread in wine, and use it in as large pieces as is convenient to stuff the bird. The delicious flavor which the wine gives is very penetrating, and it gives the fowl a rich, gamey character which is very pleasant.

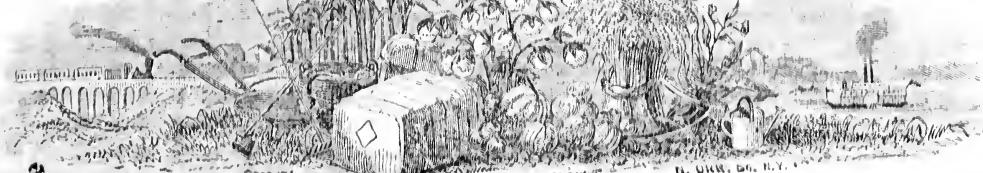
PAINT WITH SINGULAR PRESERVATIVE QUALITIES.—By subjecting eight parts, by weight, of linseed oil, and one part of sulphur, to a temperature of two hundred and ninety-eight degrees, in an iron vessel, a species of paint possessing singular preservative qualities is produced. Applied to the surface of a building, with a brush, it effectually keeps out air and moisture, prevents deposits of soot and dirt, and preserves the beauty of the stone, wood, or brick to which it is applied.

CHEAP SPONGE CAKE.—Two eggs, one cup of flour, one cup of sugar, one spoonful of sweet milk, half a spoonful of soda, one teaspoonful of cream of tartar, and a little salt; grate in some rind of lemon and add a part of the juice and a teaspoonful of butter. Bake fifteen minutes.

STARCH POLISH.—Take one ounce of spermaceti, and one ounce of white wax; melt and run it into a thin cake on a plate. A piece the size of a quarter dollar, added to a quart of prepared starch, gives a beautiful lustre to the clothes, and prevents the iron from sticking.

To PREVENT MOULD IN BOOKS.—A few drops of oil of lavender will save a library from mould.

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D. REDMOND, Editor.

See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—The *Cotton* crop must be steadily worked, to encourage the development and retention of forms and bolls. Shallow, surface culture, with light sweeps, followed by the hoe, will be found the best method in all cases. Do not allow the grass or weeds to get a foothold either in the row or middles—wage a steady warfare upon them during this month, after which they will not give you much trouble.

Where Corn is not "laid by," it will be well to give it a constant surface working, until prevented by the spreading of the blades across the rows. Allow no weed to appear in your corn field—weeds and corn cannot flourish on the same ground. Do not use the turning plow among your corn after the first two workings. It breaks and tears up the young rootlets, and does far more injury than good. At the last working, sow Cow Peas broadcast, and cover with a sweep, cultivator or harrow. Plant Pumpkins, in every second or third hill, and when well up, thin to one plant in a hill, and work carefully.

Cow Peas should now be sown broadcast for hay, at the rate of a bushel or six pecks to the acre. Scatter over the surface evenly, and cover lightly with a turning plow; or, first plow your ground deeply, sow your seed, and drag in with a harrow. Cow Peas intended for seed may be sown in drills, three feet apart.

Pumpkins may be planted as a separate crop. Prepare the ground as for Watermelons; hills 10 feet apart. When well up, thin to one or two strong plants in a hill, give these a sprinkling of Plaster or Gypsum (a small handful to each hill) when the dew is on; loosen the earth, carefully breaking the crust, without disturbing the plant, and then let them run. The after-work consists in shallow surface culture, and the destruction of weeds, until the vines cover the ground.

Pulling Fodder, we have often condemned, heretofore, and consider it in all respects a non-paying and poor business. It should be discontinued by all enlightened and

economical planters. We offer the following substitute, which we have often recommended heretofore:

Corn Fodder.—Break up, very deeply, a piece of rich land, harrow it finely, and, with a broad shovel plow, lay it off in drills three feet apart. In these drills scatter corn at the rate of 40 or 50 grains to the foot, and cover with a hoe, rake, hoard or harrow, drawn lengthwise along the drill. When well up, "run around" it pretty close with a long rooter, and repeat after 10 or 15 days. In the course of 10 or 15 days more, break out the entire middles with the rooter, and finally lay by with the shovel plow, running up and down in the same furrow, midway between the drills. On good land, prepared and worked in this way, the yield will be from 3 to 6 tons (sometimes even 10) of excellent fodder per acre. This is as much as can be pulled from 20 to 30 acres, in the common way, and at one tenth of the labor. Pound for pound, it is as good, if not better than pulled fodder, as it contains the entire juice and strength of the plant, which, in the other case, has gone to the formation of the ear or grain. The loss of weight and injury to the grain, by depriving your regular corn crop of its leaves before all growth has ceased, is fully equal to the value of the fodder pulled. We, therefore, desire that our readers should abandon this "old fogey" practice, and give drilled corn fodder a fair trial. It is not yet too late, but should be done immediately. Any one who fairly tests it will, we are quite certain, abandon fodder pulling forever.

In moist weather, sow again the Chinese Sugar Cane for soiling. It can be cut every 15 or 20 days and fed to your cattle in the stable or lot. You will, by so doing, make a great deal of excellent manure.

Curing Corn Fodder.—The proper time to cut drilled fodder is, when all the stalks are fairly tasselled out, or in full bloom. It may be cut close to the ground, with a long, sharp knife or sickle. Select a dry day, commencing early in the morning and cutting until dinner time. As fast as it is cut, spread it thin along the row, and let it lie and take the sun until after dinner, when the upper side will be well wilted. Then turn it over carefully, and leave it on the ground until 5 o'clock in the evening, when it must be gathered up, tied in bundles of moderate size (say a foot through at the band) and set up on the butt end, in shocks of 4 or 5 bundles each—turning one bundle upside down, over the others, as a "cap-sheaf." The next day, after sunrise, these bundles must be untied and the fodder spread out again until noon, and then turned and sunned till night, as before. This may be re-

peated the third day, which will generally be sufficient, if the weather is dry and favorable. It may then be permanently stacked or packed away under cover; and if while packing the different layers are sprinkled with salt, at the rate of about 8 quarts to an ordinary 2-horse wagon load, it will be more highly relished by stock, and all danger of heating obviated. The same plan, of course, applies to the Chinese Sugar Cane fodder. In drilling either Corn or Chinese Sugar Cane for fodder, sow *very thickly* in the drill, so that it may grow like coarse grass instead of being heavy and "stalky." Be sure, also, to make the land deep and rich.

Cutting up Corn in the field, and using the stalk and leaf for the winter feeding of stock, has also many advantages, which we will speak of in detail hereafter.

Sweet Potatoes must now be worked carefully, throwing up some fresh mellow earth to the ridges, and destroying all weeds. Make your last planting of "draws," and if the weather is very dry, before planting dip the roots in a thin batter—plant just at night-fall—and manage as heretofore directed. As soon as possible, prepare a rich, moist piece of land, and plant out an abundance of cut vines to produce next year's seed.

Turnips.—This is a most important crop for the planter and farmer, though not yet appreciated fully. A distinguished English statesman has said that England could better afford to lose its navy than its turnip crop. Therefore plan largely; it is indispensable as a winter forage. We will hereafter describe the best and most profitable way of feeding. If you have not already prepared your land for Turnips, do it at once, pulverizing it thoroughly by several plowings and cross-plowings. If you have no land which recently has been cow-penned, scatter some guano (250 pounds per acre) previously to the last plowing, and turn it under immediately. Sow in rows, at such distances as to allow the turnips to be worked with "Knox's Improved Horse Hoe," if you have this excellent implement. Make arrangements to sow often and largely, commencing early, as it is sometimes extremely difficult to get a stand. Make your first sowing about the 20th of this month, and if that should fail, try again every 10 days until the last of September, and your perseverance will be crowned with success. Guano, super-phosphate of lime, broken bones, or a compost of woods-mould or well rotted stable manure with crushed bones and ashes, are each and all proper fertilizers for the turnip crop. The manure may be applied in the drill or put on plentifully broadcast, and plowed in well. The Rutabaga Red Top ("strap leaf") Early Flat Dutch, Yellow Aberdeen, Norfolk and Globe are all good varieties—the two first, fifth and sixth being the best for field culture. As food for stock, we believe, the Rutabaga is conceded to stand foremost.

Draining and Ditching.—The richest land on the plantation is often allowed to run waste, worthless and wild, presenting only stagnant puddles of water, rank grasses, weeds and brambles, and forming a harbor and receptacle for snakes, lizards, turtles and "vermin" of every description. Now, during the "summer solstice," when the

ground is comparatively dry, and the heavy field-work over, is a good time to change these offensive blotches on the face of Nature into cultivated fields of the most productive character. Dig wide and deep under-drains, or open ditches to carry off the surplus water, cut down and grub up trees, bushes and briars, destroy noxious weeds, &c., and plant the reclaimed ground next spring in Irish Potatoes, Corn, Cotton, or Grass for meadows. [See notice of a capital work on Draining, in "Our Book Table."]

Grass and Woodland Pastures.—Select a piece of naturally moist, good land, timbered with spreading trees—cut down and grub out all small shrubbery, briars, brush, &c., leaving only large trees standing. Then break up the ground as finely as possible, by plowing and cross plowing, with a long, stout, sharp rooter, and seed down heavily with White Clover, Kentucky Blue, Texas Musquit, Herds, Italian Ray, or other grasses for woodland pasture. Grass will not succeed without plenty of moisture, under our parching suns, and to such as are not able to supply moisture and sustenance, by deep sub-soiling and liquid manure, we recommend a trial of shade for their pastures, meadows and lawns, as above indicated.

Hay.—Now is the time to make hay. Cut the grass while in bloom, spread it immediately, and turn it over in the afternoon. In the evening rake it up, in long and rather thick rows. By turning them once a day for the next two or three days, your hay will be nicely cured, and equal to, if not better than the Northern hay. Should rain threaten while the hay is drying, make a rush with full force, and pack the rows up into sharp pyramidal cocks the size of a molasses hoghead, and when the ground dries again, spread out thin to cure. Northern hay ranges in price from \$1.25 to \$2 per hundred pounds, and it is a shame that we of the South should ever be obliged to buy a pound of it at any price! when we can produce as good an article with little or no trouble or expense.

Weeds and Grass.—All crops on the plantation require particular attention during the present month. The weeds will choke up and strangle everything unless they are promptly dealt with—cut down and destroy them before they go to seed; and thus prevent present and (in a measure) future annoyance from them.

THE KITCHEN GARDEN.—The earlier spring vegetables being now nearly all gone, little can be done to advantage. It will be well, however, to clear off or turn under all weeds and the remains of early vegetables, and manure liberally by way of preparation for fall crops. Celery seed may be sown, but the bed must be shaded from the direct rays of the sun. Sow, also, Rutabaga and other Turnips, as directed under the previous head; Lima or "Butter Beans," the Green Glazed Cabbage; purple Egg Plants, Radishes, Cabbage, Lettuce, Tomatoes, &c., for late crops. In the latter part of this month, transplant Cabbages for fall and winter use. Take off limbs of your Tomato vines, shorten the top and set them out as cuttings, and shade them with a little brush wood; they will soon come to bearing, and yield fruit until frost.

Also, plant Garden Peas and mulch them pretty heavily.

Dig or plow your garden over thoroughly, and repeat the preparatory operations of the spring, for, in fact, this and the next month should be considered a *second spring*, all the spring work repeated, and, if the season proves favorable, you may have a full supply of vegetables until frost. Mulch and water young trees, shrubs, vines and vegetables, using liquid manure as heretofore recommended, alternately with pure soft water. Prepare the ground for Strawberry Beds during this and the next month. Select new ground near an unsailing stream, if possible—plow deep, turning under a good thick coat of leaf-mould and ashes, and leaving the surface fine and mellow. The most important work, however, for the present, is to keep your Strawberries clear of weeds, and the soil around them well stirred, which is done best with a pronged hoe.

Transplant Cabbages, Cauliflowers, Celery, Tomatoes, &c. Plant Melon seed for mango pickles—also, Sweet Corn for late roasting ears. Plant out slips or vines of the Potato without delay, and plant, also, Snap Beans for a successional crop. If you mulch them heavily as soon as planted, you will find no difficulty in getting them to grow.

THE ORCHARD AND FRUIT GARDEN.—Wherever the spring frosts have killed the fruit, there will be a strong tendency to over-luxuriance in the growth of wood. This should be checked by cutting back or nipping off the ends of the young shoots, in order to produce more bearing wood for next year. Destroy all injurious insects, and note carefully the bearing qualities and peculiarities of the different new as well as old varieties of fruit. No trouble or cure should be spared in gathering and sending them to market in the best possible condition. Gather *free-stone* Peaches for distant markets as soon as they show elasticity by pressing them gently with the hand, before they are so ripe as to leave an impression of the fingers. *Clingstone* Peaches should be allowed to become nearly or quite ripe, before they are gathered. If not, they shrivel, and become tough.

THE FLOWER GARDEN.—Roses, &c., should now be budded and layered. Take up early Bulbs, as directed in our last number, and plant others to flower in autumn. Roses, Chrysanthemums, &c., may be propagated by layers. Dahlias will need staking and pruning, if over-luxuriant. Clip Box edgings. Now, also, is the best time to trim Evergreen hedges and screens. Gather all desirable seeds, as they ripen, and put away in close paper bags, carefully labeling them. Water delicate plants freely, both roots and foliage, and use liquid manure for the roots at intervals, particularly in rainy weather, being very cautious in applying it during a drought. Keep the earth mellow, and mulch all large herbaceous plants with woods-mould, leaves or saw dust.

THE AMERICAN HORSES IN ENGLAND.—Mr. Ten Broeck's Belle ran for the Wynstay Handicap of 100 sovereigns at the Chester Spring meeting, May 3. Belle took the lead before starting, and won easily by two lengths.

"AGRICULTURAL STATESMANSHIP."

EDITOR SOUTHERN CULTIVATOR—A writer in the May number of the *Cultivator*, over the assumed signature of "Randolph," handles my article in the March number without gloves. I advocated an Agricultural Convention of the United States, to deliberate upon and adopt suitable measures to advance our agricultural interest, and especially to unite all farmers in pressing our claims upon our Statesmen. Upon this proposition, "Randolph" remarks "may the day be very distant, when agriculture shall sell her right to protest against all *class legislation* for any mess of pottage which this government can cook. * * But, until some successful Guy Fawkes shall have blown up the Patent Office (and parts adjacent); or some true Statesman shall perform a like office for the Tariff, and we have that good time, so long coming, of Free Trade and Direct Taxation, it is altogether likely that it will suit the convenience of many people to talk about partial legislation or Statesmanship."

Now, it does suit my "convenience" or my inclination "to talk about partial legislation or Statesmanship," nor have I advocated partial or class legislation, as thus charged without proof or argument. My Essay upon Agricultural Politics, published some years ago in the *Cultivator*, and my article of last March, (which alludes to the former) taken together plainly advocate that our legislation ought not to be partial (as it is); that great Statesmen ought to aim to make our country great in Commerce, great in Manufactures, and great in Agriculture. I substantially stated that our government has ever legislated liberally for Commerce, has done something for Manufacture, and almost nothing for Agriculture. I claimed that each branch of production to the national importance of each, and in proportion should be fostered and encouraged, in proportion to the capital and number of our citizens employed in each of them. I claimed that our Statesmen ought (as nearly as can be done) to extend equal benefits to all classes of our citizens by their legislation.

Can any man make these positions advocate partial or class legislation? Can any one, who desires our Government to be a *Republic in practice*, as well as in theory, oppose the principles thus advanced? Must any man be charged with advocating partial and class legislation when he writes mainly to oppose the partial and class legislation of our government? Our Commercial population is only about one-fifth of our Agricultural population, and yet our government has appropriated to Commerce at least a hundred-fold more than to Agriculture. Therefore, if "Randolph" is advocating such legislation, it is he who advocates partial and class legislation. The charge is true against him and not me.

This policy legislates for our commercial men (a mere fraction of our people) fifty-fold more than for all other classes. If "Randolph" disputes this statement, let him show, from the records, what our Government has done for all classes besides those engaged in Commerce, and I here pledge myself to prove what I state, by showing the amount appropriated in each year, for Commerce, both in money and public lands, from 1790 up to 1848. This, of course, will cost much time and labor, but I am willing thus to defend the proposed effort for our agricultural interest, if necessary to success. Our Agriculture is a vast interest, and our farmers ought to be united; they ought to meet in convention, and consult together, and deliberate earnestly and patiently till they can agree upon just and reasonable measures to elevate and advance it. And if their combined wisdom shall decide (as one means of accomplishing their important object) that our Government should do several things for the promotion of agriculture (as I hope they will) then we can act in concert, and success will be certain. And till then, it is plain

from the past, that our Agriculture will get no serious consideration from Statesmen, and no important encouragement from the Government. By the practical operations of the Government, farmers will not be placed on an equality with other citizens.

"Randolph" says "Government has nothing of its own, therefore, it can only give to Peter by taking from Paul." Then our Agriculture is Paul, and our Commerce is Peter, because our Government has ever appropriated liberally to promote Commerce. From the origin of the Government till now, I am certain that the Government has given to Commerce, in lands and money, not less than two hundred millions of dollars, while Agriculture has not received one million. This partial legislation still goes on every session of Congress.

During 1837 our Commerce received from the Treasury two millions nine hundred and seven thousand dollars, and during 1838, it received appropriations, in money, to the amount of three millions three hundred and twenty seven thousand dollars. Paul certainly has a right to complain of this partial and class legislation.

It is to be hoped that no farmer will allow his party prejudices to influence him to oppose any just and reasonable measure proposed for the advancement of Agriculture. This would be Agricultural suicide. Our interest requires that the propriety of the proposed Convention shall be freely and fairly discussed. I hope the Editors of all our Agricultural journals, and their numerous contributors will give it a candid and deliberate consideration and give the result of their reflections to the public.

With deference to all interested,

F. H. GORDON.

Rome, Tenn., May, 1859.

SODA vs. YEAST FOR BREAD.

EDITOR SOUTHERN CULTIVATOR—An uncompromising warfare has been waged against those almost indispensable culinary helps, the bi-carbonates of soda and potash. If this had originated only in quack advertisements, or in the frightful pictures that a certain class of empirics are so fond of drawing of many innocent habits and practices, common among men, I should not waste time in opposing it: but the opinion that these alkalies, when habitually used in bread are productive of serious injury to the human body, has been advanced by men, whose authority we are bound to respect, and whose influence is deservedly extensive.

I will try to base my defense strictly upon scientific facts, and if I am in error, I will feel under obligations to the man who can convince me of it.

Hitherto, I have only seen assertions that the alkalies—soda and potash—are injurious when used for the purpose of raising bread; and usually in connection with this assertion, yeast, or ferment, is recommended instead. Now, I shall show, in conclusion, that yeast may be productive of much more mischief than either of the bi-carbonates above referred to.

Soda is a caustic alkali in its uncombined state. It is the base of common salt, and in this form is daily taken into our stomachs with food; and also administered, regularly, to domestic animals by the careful husbandmen. And when we remember that, notwithstanding the chloride of sodium has been used from time immemorial, by man, and eagerly sought after by wild animals, it, too, has met opposers among ultra hydro-pathists, it is not so astonishing that the bicarbonate, which is of such recent introduction, should also have its enemies.

Potash is an alkali extracted from wood ashes by percolation; and for culinary purposes, is combined with two equivalents of carbonic acid, and sold under the name of saleratus. The chemical natures and physiological effects of the two bi-carbonates are so nearly iden-

tical that I shall not keep up the distinction in treating of them, though, from the fact, that the bi-carbonate of soda is drier and more easily reduced to powder, it is preferable.

To secure the desired effect of bi-carbonate of soda, it is necessary to use it in connection with some acid which, by combining with the alkali, sets free the carbonic acid, in form of gas, at the time of baking. Sour milk, which contains lactic acid, is best. The lactic acid, having a stronger affinity for the soda than the carbonic acid has, combines with it, forming lactate of soda, a neutral salt, possessed of no caustic property whatever; while the gas, disengaged, fills the bread with minute cells and thus renders it light.

In the absence of sour milk, tartaric acid, or cream of tartar should be used. If tartaric acid is used, tartrate of soda results; a harmless substance, even in considerable quantities, and by no means unpleasant to take, these warm days, in the form of an effervescent draught. If cream of tartar is used, the product is tartrate of soda and potassa, or Rochelle salt, which is known to be one of our mildest saline purgatives in ounce doses.

A hearty eater will take only a few grains of any of these salts at a meal, and these readily pass off through the excretions of the body, or enter upon their physiological offices in the gastric fluids, the bile or blood. For the presence of both soda and potash is essential in the healthy body. They exist, to a greater or less extent in our daily food, aside from their use in raising bread, and the only way in which we can entirely avoid them, is to abstain from food—by no means a desirable alternative.

These bi-carbonates, used without an acid, render bread unpalatable; and this of itself would prevent persons from using them to a hurtful extent.

Instead of being a curse to the world, the introduction of the bi-carbonate of soda has been a great blessing in banishing lard, in a great measure, from our biscuit. That the large quantity of grease necessary to make good short biscuit of superfine flour, renders bread, in a high degree indigestible, will be universally admitted. Make biscuit according to the following formula, and you have an article altogether superior in point of digestibility and flavor to those in which lard is used as the only shortening.

R 1. Flour, two pounds; fine Indian meal, a teacupful; bi-carbonate of soda, a heaping teaspoonful. Thoroughly mix these dry and make up with new butter-milk, or if the milk is very sour, add water, sufficiently to make it about like new butter-milk. The soda must be neutralized, and, in using milk, judgment on this point must be exercised.

R 2. Flour and meal as above; rub together dry a teaspoonful of soda and two-thirds as much tartaric acid. Mix this dry with the meal and flour and make up with water.

R 3. Same as No. 2, except use a teaspoonful of cream of tartar instead of the tartaric acid.

A very small quantity of lard or butter may be used with advantage to the taste, but it is not essential. These ingredients added to corn bread make a wonderful improvement on the old-fashioned hoe-cake.

I am indebted to my wife for the above recipes for making bread. Try them.

Now let me propound the question to those opponents of the bi-carbonates in bread-making who profess to be posted up in chemistry and physiology, in what respect can the lactate or tartrate of soda do more mischief to the human organism than the chloride of sodium? If they cannot answer this theoretically, nor show, by experiment, that such is the case, they must choose between the two alternatives—abandon the position that soda, as a lactate, or tartrate is injurious, or enter the same protest against common salt.

I promised to show that yeast in bread may be productive of more mischief than soda. Yeast is the deposit formed in fermenting liquids, and has the property, when added to solutions of starch or sugar, even in exceedingly small quantities, of exciting the vinous fermentation in the whole mass. "A little leaven leaveneth the whole lump," was a familiar household phrase long before the advent of chemistry as a science; and yeast is still added to bread, that it may communicate the vinous fermentation to the starch and sugar in the meal or flour, and thus cause a disengagement of carbonic acid and alcohol, by which the bread is "raised." I do not wish to deal as unmercifully with yeast as others have done with soda; but facts are stubborn things, and I will state a few that must be admitted by all. We take into the stomach at every meal, more or less, sugar and starch, and if it be not readily acted upon and dissolved in the gastric secretions will undergo the vinous fermentation, producing sour stomach and the escape, by belching, of carbonic acid. It is well known, as above stated, that yeast hastens this process, and will, as a matter of course, lessen the possibility of a healthy solution in the gastric fluids. Cholera morbus and diarrhea are much more common in large cities where yeast is easily obtained, and much used, than in the country. A healthy stomach, especially in winter when the system is in a vigorous condition, may take yeast in considerable quantity and digest the meal before the process of fermentation has time to take place. But not so with weak stomachs, or healthy ones in the heat of summer when the vital energies are depressed; for under these circumstances sour stomach is caused, carbonic acid is disengaged in large quantities, and if the contents of the stomach are not ejected by vomiting, they are forced through the pylorus undigested, frothing and foaming into the bowels, and a diarrhea is the only means violated nature has for relieving the system of the offending materials.

SYLVANUS.

*Sumter County, Ala., June, 1859.***WHAT CONSTITUTES A GOOD FARMER?**

OUR friend and correspondent, G. D. HARMON, thus asks and answers this important question, in a late number of the *Cotton Planter*:

If the Disposer of human events should permit this world to stand a thousand years longer, the time will surely come when every man who tills the earth will be compelled to be a good farmer or starve to death. This is a strong expression, but as true as it is strong. Old fogeyism may continue to denounce those who labor to improve the agriculture of the South; but the time will come when their posterity will see their stupid folly, and be forced to improve the soil which their ancestors butchered. The day has already come with England, France, Germany and Ireland, where agriculturists are compelled from true necessity to study their profession, and improve their systems of farming economy, to an extent limited only by their power to do so. If they were to pursue the course that the planters of the South are now pursuing, in less than twenty years they would either starve to death, or be forced to leave "their own, their native land."

But the question arises, what is a "good farmer?" There is much diversity of opinion on this question. Sometimes the men who run over the most land per hand, and drag out of the soil the most money, regardless of the wear and tear of land, and team and force, are called good farmers, yea, the best farmers. But is that true? I admit it not. To do so would be equivalent to admitting that the doctor who made the most money, regardless of the lives he destroyed, was the best doctor. The one would be about as true as the other—both are utterly false.

A "good farmer," according to the best and most intelligent agriculturists of the South, is the man who improves his land, and the appearance of his place, improves his stock and takes care of his force. And I think this definition of the term is correct.

No man, however intelligent on other subjects, no matter how much money he may be making *for the time being*, should be considered a "good farmer," in the strictest sense of that term, who grossly neglects the improvement of his soil and force and stock. No man who cultivates the hills and permits his fields to wash into yawning gullies, and turns them out for his children to reclaim, at the cost of much labor and expense, or leave their old homes, or starve, is to any extent, whatever, a good farmer. No man who denounces agricultural improvement, and agricultural journals, totes corn in one end of his sack, and a rock in the other end to balance it because his "daddy" done it, can possibly be a "good farmer."

COTTON---FALSE PACKING!

A correspondent of the *Edgefield Advertiser* thus rebukes a very mean, rascally and fraudulent practice which has of late become altogether too prevalent:

Mr. Editor—If "I am not out of order," I beg permission to call the attention of the cotton growers of South Carolina, to what I conceive to be, and is a *sad* and growing evil—involving character on the one hand, and money on the other. I allude to the improper packing and putting up of cotton. I have been a dealer in cotton for many years, almost exclusively in that product; and sold within the limits of South Carolina; and I am sorry to say that I have had to do with more cotton thus improperly put up the past season, than I have had in the *whole* of any three years of my experience. Therefore, you will perceive that the evil is a growing one.

I need not say that there is evident *wilful fraud* manifested, by the putting into cotton any foreign substance, such as sand, rocks, seed, &c.,—and, last, but not least, water—which of all, is the most objectionable, from the fact that it is the most common. The purchaser not only loses the weight of the water, but, to a great extent, the cotton.

Will not some or all of the various Agricultural Associations, that have been, and are being formed in the various Districts, take cognizance of this evil? Some of the States have interposed by Legislative enactment. I would much rather that the necessity should not arise here. I have but little doubt that many cases occur through inattention on the part of owners or overseers. The result in this case is the same to the purchaser; and who most generally comes to the worst conclusion in the premises.

There are many who designedly put their cotton up in this way, under the belief that the cotton cannot be traced back to them. I will say to such, they are under a misapprehension. The shipping of cotton is so perfect in system, that every bale can be traced from Liverpool back to the planter or the first seller. Under that impression, I have no doubt but that many are induced to persist in it. Many sellers of such cotton have been allowed to pass, for the sake of getting, when it is traced, beyond a doubt, to their door.

I say, therefore, inasmuch as the evil is a growing one, the reputation of our State and Nation demands a relief—and right and common justice demands it. I trust that the pride of our State will never be again compromised and humiliated by the record in Liverpool or elsewhere—that a fraudulent packed bale of cotton cleared from a port in (or was produced in) the State of South Carolina Then our proud motto will be

JUSTICE.

HUMBUG!!!

EDITOR SOUTHERN CULTIVATOR—I detest the name of this meaningless word, a word that has done more injury to the advancement of Agriculture than anything else that can be named. In this day everything is a humbug—a trial is not at all necessary—it's new, and that is enough to brand it a humbug. You are invited to a newly discovered gold mine, and find it all a humbug, because, forsooth, the gold is not found ready coined into dollars, it might have been in five cent pieces, but that would not relieve it of the stigma; nothing short of dollars would, and even then I am not certain that some would not complain at the absence of a few five dollar pieces. Well, here's a new plow, how do you like it, gentlemen? What do you claim for that plow, sir? I claim that it will both turn and subsoil at the same time. I do wonder if you think you can humbug anybody with such talk as that? I do not desire to humbug any one—would you be pleased to try the plow? No sir, I do not wish to try it, because I am satisfied it's a humbug without a trial. And thus it is, Mr. Editor, *vive le humbug*. Our passengers are now wondering that they so allowed themselves to be humbugged, as they were some years ago, by the stage contractors; and perhaps before long, if the cry of humbug don't prevent it, they will tell you how they were humbugged in 1859, by the snail pace of forty or fifty miles per hour! Speak of anything you please, a new grape, a new grass, a new anything, and there are those ready to exclaim, humbug!

Well, I do not pretend to say they do not sometimes hit the mark, but I do say let the thing have a fair trial before passing judgment. Take the case of the Chinese Sugar Cane, the stalk is good, so is the leaf and seed, it makes a good syrup, but because it does not turn out sugar, as some thought it would, it must, therefore, be a humbug too; some have even discovered that it kills cattle. My experience teaches me differently. If a man will let his cattle get so thin that you may rivet a ten-penny nail through their sides, he should not complain if they die when turned into a green pasture. Why, it has not been very long since a discussion was going on as to whether pea hay would not kill cattle of the kine kind, but how it was ever settled I am not at present advised, however, my opinion is, that we might find some believers in the humbuggality of pea vines. And is it not a great wonder that it has not been found out that corn and rice is a humbug? Indeed I am certain that some would have that opinion of corn, if it were not for the whiskey that is made from it. But seriously, Mr. Editor, I think it is high time that men should take proper views of things and not pronounce a wholesale condemnation on anything till they have satisfactory evidence to warrant them in so doing.

Respectfully,

V. L.

Augusta, Ga., May, 1859.

LIGHTNING PHENOMENA!

E. MERRIAM, the great "weather man," of Brooklyn Heights, thus writes to the editor of the N. Y. *Journal of Commerce*, under date of April 25;

An inquiry is made of me as follows:

"Would you be so kind as to inform me through the *Journal of Commerce*, on the following point: Why is it that we so seldom hear of death from lightning in cities, while it is so frequent in the country?"

In reply we answer, that we cannot say; but our records of lightning phenomena rarely mention death by lightning in large cities. We have no record of death by lightning in a building covered with a metal roof.

In the year 1858 we recorded the deaths of fifty-four persons, killed by lightning on the land, within the field

of our research. This is not a large number—we have recorded one hundred deaths by lightning in a single year in some previous years.

In Greenwood Cemetery, the surface of which embraces six hundred and fifty (650) acres, the lightning has struck trees and fences five times since June, 1840.

In the city of Boston the lightning does strike frequently. In New Haven, Connecticut, Baltimore, Md., and Philadelphia, Pa., the lightning strikes frequently.

In my juvenile days I made extensive wilderness tours, and took particular notice of trees that had been scathed or riven by lightning. On one ridge I found great numbers of trees scathed by lightning, and I named the place "thunder and lightning ridge," and then supposed it contained metals that attracted the lightning. Many years devoted to observation have changed that opinion. The ridge is a water shed, and it is no doubt that peculiarity of surface for which the lightning manifested its preference.

A few days since a stranger accosted me in the street and inquired if iron bedsteads were dangerous to sleep upon during thunder storms. I said in reply that I had never known a death by lightning on a bed resting on an iron bedstead, but we have recorded deaths by lightning, of persons reposing on feather beds on wooden bedsteads,

No case of death by lightning has yet occurred to a telegraph operator, to persons on board of steamboats or in railroad cars, or in iron vessels or iron buildings, or in vessels furnished with lightning conductors, and but four deaths in buildings furnished with lightning rods. Two persons have been killed by lightning while standing on the outside platform of railroad cars.

Many persons suffer greatly from fear during thunder storms, and that fear has, in two cases which have come to our knowledge, produced death. It will be a comfort to such to know the safety which railroad cars, steam boats, iron buildings and iron vessels, and vessels and buildings furnished with rods afford during thunder storms.

Persons struck down by lightning should be freely drenched with cold water. We have the record of a case of resuscitation after hours of drenching; therefore do not get discouraged, but continue drenching till animation is restored.

The season of the year for the frequent occurrence of thunder storms is now here, and this notice may be the means of doing some good.

I have put in type and stereotyped several pages of lightning statistics, the printed pages of which will be sent free of any charge to any person desirous of the information that these printed sheets contain. It is hoped that the circulation of these printed sheets may be the means of saving many lives.

CORK OAKS.—The *Dallas (Texas) Herald* of May 4th, says:

The Cork-acorns distributed from the Patent Office amongst our citizens were planted, and many of them have germinated. In some places, we have seen them several inches high, presenting a very healthy appearance, and resembling, in their young growth, some of our native varieties of oak. The cork-tree mania is triumphant.

"When the noble Cork-tree shades
A lovely group of Castilian maids,
It is a theme for a song or sonnet;
But cork—when it stops a bottle of gin,
Or bungs the beer (the small beer) in,
It sticks to the heart like a corking pin
That there's something vulgar in it."

POISONED FROM EATING HONEY.

"WEEK before last, Mr. W. S. Edmonds, who resides near Randolph, in Bibb county, was poisoned by eating honey. It seems that, Mr. Edmonds, in company with several others, cut a bee-tree, and eat of the honey. There was a considerable quantity of the comb containing honey, which was uncapped, and of this kind Mr. Edmonds eat, while the others eat the capped honey.—Shortly after eating the honey Mr. Edmonds was taken with spasms, frothing at the mouth, and almost every other symptom of poison was exhibited. A physician was sent for immediately, but no relief could be given until about a quart of warm whiskey was administered, when instantaneous relief was experienced. It is said that uncapped honey at certain seasons of the year is a violent poison. If so, persons ought to be careful not to use it in the spring of the year."—*Selma Sentinel.*

EDITOR SOUTHERN CULTIVATOR—Once in a while, like a comet in its eccentric course, a paragraph like the above makes its appearance in the newspapers. I compare them with a comet, because, like that body, you will always find them accompanied with a flaming *tale*. Just read over the thing and see if you can discover one iota of proof that Mr. E. was poisoned. It seems that in the tree was a large quantity of honey, some of which was uncapped, by which, I presume, is meant *unsealed*; of this, it appears, Mr. E. ate—perhaps to test the question—while the others partook of the capped, or sealed. It appears, furthermore, that Mr. E. was taken with spasms, &c., that a physician was sent for, but could offer no relief till about *one quart of warm whiskey* was administered. Was that an experiment with the doctor, or is it the remedy prescribed in the books for such cases? Are there such cases on record? The statement goes on to say: "*It is said, &c.*" "*if so, &c.*" May I be so bold as to ask, who said so? It is said that the hair of the mad dog will cure the bite, but I have no idea that it will. It is said that throwing salt in the fire will stop the cry of the screech-owl, but I don't believe it. It is said that bees coming in your possession by purchase will not thrive, but I know better. It is said that honey is poisonous, I say it is not so, and when I call for proof that it is, I receive for answer pretty much what you see above. I ask you, sir, in all candor, is that *proof* that honey is poisonous? If everything is true or false, because it is said to be, there is no use in philosophy. If a man chose to make himself sick from over-eating, he should blame himself, and not that which he has eaten.

Very respectfully, V. LATASTE.

Augusta Ga., June, 1859.

DEPTH TO SOW TURNIP SEED.—A correspondent of the Boston *Cultivator* says:

"I would say from one half to three-fourths of an inch, I have found to be the depth best adapted to the turnip. My method of preventing the fly, which is all that troubles my plants, is to sow seed enough for the fly and myself at the same time, and have always had a good stand left after the fly had taken his share, which is generally the lion's share. Sow at least ten seeds where you want one plant; thin out, if need be when the plants are two inches high, as then the fly will have done his work."

FASSMAN'S IRON HOOPS AND TIE---SCRAPER, &c.

EDITOR SOUTHERN CULTIVATOR—Some one (the Agent I presume, F. Belcher, of New Orleans,) has sent to me a specimen of "Fassman's Iron Hoops and Tie," which, from an examination alone, I am induced to think will do. The price—6 cents per pound—recommends it, and if the fastening will certainly do, we may, with propriety use it. No one will question the great saving, if no other advantage, from fire. I had a bale set fire to last fall in the presence of some thousands at our Fair, and though not a fair exhibit, owing to the smoke being an inconvenience, it was put out measurably with water, yet enough was seen that the hoops held. The clasps used were McCombs. I see the certificates of some eight shipmasters who recommend and will take cotton with those hoops, preferring the iron tie to the rope. Allow me to ask you to write for a specimen. The tie is exceedingly simple and unique.

I have fully tested the Winger Double Scraper and do not hesitate to recommend it. I use two mules and scrape both sides of a cotton row beautifully. My best plowman says it scrapes both sides as easy as he ever had one to do one side, and he is perhaps the first man in Mississippi that ever used a scraper. My 20th crop is now scraped with a scraper. When we began here, it was but a sorry affair, but we have continued until we can now scrape a row so well that I can select 10 hands and put in a 40 acre field and for a day's race they will reduce to an ordinary stand, with hoe, scraping better than I did 1 acre each in 1832.

Yet another Double Scraper, invented and patented by Mr. Patrick Sharkey, of this county. This is the block scraper, one of the scrapers in advance of the other, and intended to obviate the *supposed* defects of Winger's—which, I must admit, I thought was defective.

Sharkey's Scraper did not do on Corn land, where the Winger did; it does well on good clean lands. I know it can be improved, fault being in the stocking, as it has not been perfected by practical use. I must again urge upon the Agricultural Societies of the South buying the improved implements, testing them and then to recommend.

Although many things are given me to test, yet it is too expensive for one man. If it is right for one man to do it, there should be some equivalent. As to myself individually, the satisfaction is enough, but others have a say.

Yours truly,

M. W. PHILIPS.

Edwards, Miss., May, 1859.

BURNING TO DEATH—HOW TO PREVENT IT.—Scarcely a week passes in which we do not see an account of some female burnt to death by the catching on fire of her clothing. Much of the danger and fatality of this might be prevented by the exercise of a little presence of mind and courage. If they would immediately lie down, the clothing would burn much less rapidly, and the flames would not ascend to the body and face. If parents will impress upon their children the importance of this, and females will accustom themselves to talk and to think of it as the best remedy, they would, instead of missing, adopt it at once, because it would occur to them as the best plan, and it would save many a life.

Therefore, let parents talk to their children about it, let women generally talk and think about it, and become accustomed to think of it as the only plan of safety upon such occasions, and they will instinctively adopt it.—*Corner Stone.*

 All subscriptions to the *Southern Cultivator* commence with the January number.

CROWDED SLEEPING---BAD VENTILATION, &c.

Few people seem to be aware of the serious evils resulting from the crowding of several children into the same bed, the sleeping of healthy persons with those having organic diseases, such as consumption, &c., &c., or the sleeping of young people with those of advanced age. We deem it our duty, therefore, to publish the following warning from *Hall's Journal of Health*, and to commend it to the especial attention of all heads of families, principal of boarding schools, &c.:

"If a man were to see a quarter of an inch of worm put in his cup of coffee, he could not drink it, because he knows that the whole cup would be impregnated. If a very small amount of some virulent poison be introduced into a glass of water, the drinking of it might not produce instant death, but that would not prove that it was not hurtful, only that there was not enough of it to cause a destructive result immediately.

"We sicken at the thought of taking the breath of another the moment it leaves the mouth, but that breath mingles with the air about the bed in which two persons lie; and it is re-breathed, but not the less offensive is it in reality on account of the dilution, except that it is not taken in its concentrated form, but each breath makes it more concentrated. One sleeper corrupts the atmosphere of the room by his own breathing, but when two persons are breathing at the same time, twelve or fourteen times in each minute, each minute extracting all the nutriment from a gallon of air, the deterioration must be rapid indeed, especially in a small and close room. A bird cannot live without a large supply of pure air. A canary bird hung up in a curtained bedstead where two persons slept died before morning.

"Many infants are found dead in bed, and it is attributed to having been over-laid by the parents; but the idea that any person could lie still for a moment on a baby, or anything else of the same size, is absurd. Death was caused by want of pure air.

"Besides, emanations, aerial and more or less solid, are thrown out from every person—thrown out by the processes of nature, because no longer fit for life purposes, because they are dead and corrupt—but if breathed into another living body, it is just as abhorrent as if we took into our mouths the matter of a sore or any other excretion.

"The most destructive typhoid and putrid fevers are known to arise directly from a number of persons living in the same small room.

"Those who can afford it should, therefore, arrange to have each member of the family sleep in a separate bed. If persons must sleep in the same bed they should be about the same age, and in good health. If the health be much unequal, both will suffer, but the healthier one the most—the invalid suffering for want of entirely pure air.

"So many cases are mentioned in standard medical works where healthy, robust infants and larger children have dwindled away, and died in a few months from sleeping with grand-parents, or other old persons, that it is useless to cite special instances in proof.

"It would be a constitutional and moral good for married persons to sleep in adjoining rooms, as a general habit. It would be a certain means of physical invigoration, and of advantages in other directions, which will readily occur to the reflective reader. Kings and Queens and the highest personages have of course have separate apartments. It is the bodily emanations collecting and concentrating under the same cover which are the most

destructive of health—more destructive than the simple contamination of an atmosphere breathed in common."

THE OLD HOME PLACES---THE HILLS.

EDITOR SOUTHERN CULTIVATOR—Why is it that planters will leave their old homes, their old friends, their father's grave, the old church, the cool spring, and emigrate to the swamps of Louisiana, and Mississippi, to get rich land, and spend as much money and labor (to say nothing of the *clean sweep* of profits which they occasionally suffer by overflows) as would, if put upon their hill places, in the way of composting, subsoiling, hill side ditching and horizontalizing, make them as "rich as cream"—A No. 1, 10 bale to the hand places? Give me the labor and money which the planters of the swamps are compelled to spend upon their plantations in the way of ditching, and leveling and I can make a hill place, with a soil of ordinary capacity, just "as rich as mud," and for ten years together, beat the swamp man to death, *making money*. Give the hills a chance. Don't wear them out by an infernal system of agriculture, and then curse them and abandon them as worthless. The hill planters seem to think (with honorable exceptions, thank God) that all the labor and money they put upon their plantations, except what is actually required to cultivate their crops in most ruinous manner, is lost—lost—for ever lost! Ah, that is what has ruined the South. The hill lands are worn out and the swamp and river lands are *under water—flooded!*

The late lamented S. S. Prentice said that "God had given known laws to every thing but the Mississippi River, and he just created that and told it to rip."

I do not know whether the Mississippi River has laws by which it is governed or not, but one thing is certain to my mind, that it is not governed by *level laws*. It has torn the levees on both sides of the river to flinders, and is pouring forth floods of its *imprisoned* waters upon the broad cotton fields, one after another, and its course is onward still.

But let us hope that the water may yet retire in time to plant cotton and make a half crop. Out of 1000 acres of cotton on this place, we have 600 out of the water.

Yours, &c., D.

Louisiana, May 3, 1859.

COTTON SEED.

EDITOR SOUTHERN CULTIVATOR—"Cotton seed, when rotted, or the germinating principle in them destroyed, is fine feed for hogs."

Well, that is a fact; but they are still finer if they are sound. It is the oil in cotton seed that gives its value as a stock feeder. And as there is more oil in sound cotton seed than rotten seed, of course it is more nutritious and valuable.

And let me tell you, the notion that there is anything detrimental to hogs in the soundness or germinating principle of cotton seed is a mistake. It is not the cotton seed that affects hogs, but the lint upon them. When you rot your cotton seed, you rot your lint, and the lint passes through the hog without harm; hence the notion that rotten cotton seed will not kill hogs. Corn, with sound cotton lint upon it will kill hogs just as fast as sound cotton seed will.

To get the full value of cotton seed as a stock feeder, boil them, with a little corn and salt, and, occasionally, ashes.

Yours respectfully,

G. D. HARMON.

Milliken's Bend, La.. May, 1859.

God gives riches to asses, to whom he cannot give anything else.—Martin Luther.

WEEVILS IN CORN---REMEDY.

EDITOR SOUTHERN CULTIVATOR—Your last most interesting journal contains a request from a planter that some one should tell him how to keep weevils out of his corn. As I have had some successful experience on this point, I will take the liberty of making some suggestions.

In the first place, the corn house should be so constructed that there shall be a free circulation of air above the body of the corn, so that all the hot air rising from the corn may pass out and fresh air pass in. In order that this may be effected, the roof of the house should project at least two feet all around over the walls, ventilating holes being left immediately under the projecting roof between all the joists. A close corn house, especially in a warm, damp climate, must encourage the weevils.

But the second and most important point is this: to thoroughly sweep the ceiling, sides and floor of the corn house, that all the dirt from the corn, the weevils, the cob-webs, &c., may be entirely cleared out, and then a thorough white-washing given to the whole, and let every chink and crevice have plenty of lime put into it. This course must be pursued every fall before harvesting the corn. Should there be any old corn on hand, it must be moved out of the way until the purgation process is gone through.

The foregoing plan I have pursued for more than twenty years, with the greatest success. My corn, although soft, (gourd seed) is never troubled with weevils, and my plantation is in a hot, damp part of the seaboard. Previously to my using the lime I was very much disturbed by the weevils, and had recourse to sassafras roots, old hides, and many other things recommended, but without any effect.

In conclusion, I would say that the free use of lime makes your corn house smell sweet, and gives it the appearance of neatness and cleanliness, so admired by all, even though practiced by comparatively few. Many planters white-wash outside, but never inside. The first a mere show, the latter a real benefit.

R.

Bryan Co., Ga., June, 1859.

HANCOCK COUNTY FARMING.

EDITOR SOUTHERN CULTIVATOR—I have heard much of the great success attending the Hancock county farmers—their superior mode of cultivating corn and cotton, and the large yield attending their efforts—and I have wondered why their lights are so covered under a bushel—that some of them, while giving results, have not also taken the pains and trouble to give the *modus operandi*, that we who are benighted may be benefited as well as themselves.

Many of us in this county (Oglethorpe) are cultivating the same kind of lands and the same kind of cultivation will certainly produce like results.

Will not Col. Turner, Mr. David Dickson, or Col. Lewis, or some other gentleman, engaged in the noble pursuit, give us, through the *Cultivator*, a succinct account of their proceedings as to corn and cotton from the initiatory step of *breaking land*, to gathering the crops, through all the minute operations necessary to success? We shall look for a response from some of the gentlemen named. I would give a list of interrogatories, but deem it unnecessary, as all the points will, no doubt, readily suggest themselves to either of the gentlemen named. We shall be gratified to hear from them at an early day, and hope you will also urge the matter.

Yours, &c., F. J. R.

Lexington, Ga., June, 1859.

 A good example, which, like the small taper, gives light to read by, is preferable to the blazing meteor, which raises astonishment, but soon leaves us in darkness.

RUST OR MOULD UPON THE WHEAT AND OATS, &c.

EDITOR SOUTHERN CULTIVATOR—It is a “fixed fact” that the rust or mould upon our small grain crops is a settled institution; but the “whys and wherefores” are yet unsettled! It has utterly ruined some of the oats in our county (Oglethorpe), especially spring oats; while with other fields (fall oats and volunteer oats) the crop is a good one! Why is this? I have a field of volunteer oats—a growth from a rusted crop last year, not ahead of which was cut—which is free from rust; while in a field adjoining oats from the same seed held over until this spring a red rust covers a greater portion of them! Why is this? Who can tell?

There must be some cause for this disease, and unless we can discover it and apply a remedy we shall be compelled to dispense with the oat crop which is a very valuable one!

Salt was deemed a preventive, but it has failed in the wheat crop this year! What shall we try next? *Theories*, as to the composition of this mould, will amount to nothing if we get no remedy which will *practically* relieve the patient. We don’t care to know whether it is *animalculæ* or emanations from the *atmosphere* or the *soil*, unless we also learn how to cure it. We know it is on the small grain crops, that it kills them effectually, and we want some *physic*. Who will prescribe?

Yours, &c.,

F. J. R.

Lexington, Ga., June, 1859.

SPONTANEOUS COMBUSTION.—Col. Bolton has shown us a handful of charred cotton seed just as they were taken from a pile of the seed near by his gin-house. A smoke was observed to issue from the pile, and upon examination the smell of burning cotton was perceptible; and after digging some two feet into the pile, the heat was found to be so great that the negroes could not stand upon the seed with their bare feet, and, though no fire was discovered, yet the heat had actually charred and blackened the seed, and fire would, doubtless, have broken out in a very short time. Col. Bolton informs us that this excessive heat took place where the seed had been wet by a rain and then covered by some fresh seed.

This fact should be a caution to our cotton planters, as it affords a reasonable presumption that most of the frequent heavy losses, by burning of cotton-gins and the cotton in them, are occasioned by spontaneous combustion, unless when they can otherwise be accounted for.—*Galveston News*.

INFLUENCE OF TEMPER ON HEALTH.—Excessive labor, exposure to wet and cold, deprivation of sufficient quantities of necessary and wholesome food, habitual bad lodging, sloth and intemperance, are all deadly enemies to human life; but none of them are so bad as violent and ungoverned passions. Men and women have survived all these, and at last reached an extreme old age; but it may be safely doubted whether a single instance can be found of a man of violent and irascible temper, habitually subject to storms of ungovernable passion who has arrived at a very advanced period of life. It is, therefore, a matter of the highest importance to every one desirous to preserve a “sound mind in a sound body,” so that the brittle vessel of life may glide down the stream of time smoothly and securely, instead of being continually tossed about amidst rocks and shoals which endanger its existence, to have a special care, amidst all the vicissitudes and trials of life, to maintain a quiet possession of his own spirit.

 True religion cheers adversity, tempers prosperity, and animates us with hope in the hour of death.

THE WORKINGMAN.

The noblest men I know on earth,
Are men whose hands are brown with toil;
Who, backed by no ancestral graves,
Hew down the woods and till the soil,
And win thereby a prouder fame
Than follows king or warrior's name.

The workingmen, what'er their task,
To carve the stone or bear the hod—
They bear upon their honest brows
The royal stamp and seal of God!
And brighter are the drops of sweat
Than diamonds in a coronet!

God bless the noble workingmen,
Who rear the cities of the plain,
Who dig the mines and build the ships,
And drive the commerce of the main,
God bless them, for their swarthy hands
Have wrought the glory of all lands.

FERTILIZERS---GEORGIA IMPROVING.

THE *Savannah Republican* states that a few months ago the Central (Ga.) Railroad advertised to carry guano, salt, and other products for fertilizers, at a price just sufficient to defray the expense of transportation. The amount of these materials carried from the 1st of December to the 1st of April was, of guano 2,550,350 pounds, and of salt 109,350 pounds—making a total of 2,689,600 pounds. Altogether there were 1,343 3-4 tons, making 168 car loads.

The *Republican*, in commenting on these remarkable figures, says:

It is a well ascertained fact that the older portions of Georgia—or rather those which have been settled longest, for all, we presume, are of equal age—are more thrifty and productive to-day than they were twenty years ago. How has this been brought about? By the manufacture and application of manures, made on the farm, for the most part, and more recently drawn from the channels of commerce. This latter source of supply has been opened to the planter chiefly through the liberal and enlightened policy of our railroads; and to show what an impetus it has given to the trade, we propose to cite a single case in point.

The "case" is given above. Just as soon as our Southern people fall into this tendency of Georgia, their lands, instead of becoming worthless from year to year, will grow in value; and then there will be something like repose in our population. They will stay at home, where they ought to be, instead of running on wild goose chases every few years to find new fields in strange territory—to run away thence just as soon as they are able to wear out the soil. People think that this is an economical plan—money making in a high degree. They are wrong—the exceptions we do not take into account—not only as a means of profit, but as a moral means—for a roving man or family can never attain to much account, either materially or morally.

Georgia is the "banner" Southern State, and intends to keep the honor which her industry has won.—*Alabama Planter.*

GOOD PROFITS!—Prof. Mapes, the scientific farmer, now farms one hundred and twenty-one acres of land near Newark, N. J. His total receipts for produce raised on his farm from April, 1858, to April 1, 1859, were \$11,627.88. His total expenses were \$3,152.28, leaving him the handsome net profit of \$8,375.28. So much for scientific farming.—*Hampshire Gazette.*

NANKIN COTTON---SAW-GINS, &c.

EDITOR SOUTHERN CULTIVATOR—In your June number "R. C.," of Beauford District, S. C., inquires for Nankin Cotton Seed, Saw-Gins, &c. I will say to "R. C.," just let that variety of cotton alone, lest you rue your experimenting. It will not yield much more than half the amount per acre, as do most kinds of short staple. A hand cannot pick out more than half as much in a day, and then you will only realize about 20 per cent. more per pound for it, than for short staple. You will, therefore, see, at a glance, how unprofitable it would be.

Never having been fond of experimenting, I have never cultivated Nankin Cotton, but two of my brothers, one in Arkansas, the other in Georgia, have, and to their sorrow; and the above is about their experience in the matter.

There is a difference in Saw-Gins in respect to making a good sample of cotton; the fine tooth gins (all other things being equal) make the nicest and best samples, and there is no man in the South, has a better reputation for making the right sort of gins than Samuel Griswold, Griswoldville, Ga. His factory is not far from Macon on the Central Railroad, he will ship to any part of the South. Try him and you will be pleased.

THOMAS F. McGEHEE.

Meriwether Co., Ga., June, 1859.

ACCIDENTS---CARELESSNESS.

EDITOR SOUTHERN CULTIVATOR—Accidents, when no human agency can prevent them, are things which, of course, we must bear with becoming patience and resignation. But when accidents, so-called, are, to the fullest extent, the result of carelessness, then it almost amounts to crime. Ah! is it not altogether a crime?*

These reflections were forced upon my mind from hearing that an unfortunate plowman had been thrown from his mule, his feet hanging in the trace-chain and killed. Such accidents as these are as common as steamboat disasters on the Mississippi River—hundreds of them occur annually. Yet, strange to say, but little, if any, effort is made to prevent them. Why, in the face of these facts, stern and demonstrated, do managers and planters risk, or suffer the negro to risk his fifteen hundred dollar life, to say nothing of his immortal soul, by permitting him under any circumstances whatever, to ride to or from the field with the hame string tied?

Make it a law upon the plantation, as unchangeable as that of the Medes and Persians, if a plowman is ever found upon the back of a mule or horse with the hame string tied, that they are whipped, stocked or jailed; and accidents of the character referred to will never occur.

Yours, &c.,

G. D. HARMON.

Milliken's Bend, La., May 22, 1859.

[*Yes! the Poet says, truly,

"Evil is wrought by want of thought,
As well as by want of heart."—ED.]

HOW TO KILL SWEET GUMS.

EDITOR SOUTHERN CULTIVATOR—In reply to "C. L.'s" inquiry in the June number, the best way of destroying sweet gums, is to cut round some 15 or 20 inches from the ground; then skin down to the ground, and let the bark remain to the root of the tree; the water will run down between the bark and the wood and there remain until it sours and the tree decays.

J. D. P.

Millstone, May 26, 1859.

SASSAFRAS AND CHINA BERRIES.

EDITOR SOUTHERN CULTIVATOR—I see in your issue for April, an inquiry by one of your correspondents for information how he can prevent Sassafras sprouts from coming up in his fields, and how he can exterminate them after they are up.

For the first evil, I have no remedy. For the second I have one that I have tried with success for many years, and would say to your friend, "Cut the sprouts during the full moon in July," and, take my word for it, the sprouts will give him no more trouble.

I see in the same number of the *Cultivator*, an inquiry in relation to China Berries killing Hogs.

I am aware that they will kill pig's and shoats, and I will give, on the word of one of my neighbors, a remedy. He tells me that he has proved, to his satisfaction, that salt is a sovereign remedy. Give the common salt in solution, say two tablespoonfuls dissolved in a tea cup of water, and pour it down the pigs throat when you first discover symptoms of its having eaten China Berries, and the cure will be speedy and sure. He has experimented with this in several cases and has not failed to save the pigs.

The symptoms given by your correspondent are identical with those on the pigs of my neighbor, and there is no doubt of this simple remedy saving many pigs in our Sunny South, if resorted to by farmers.

JOHN ADAMS.

Clarke County, Miss., May, 1859.

LIFE IN NEW YORK.

A medical correspondent of the *South Carolinian* gives us the following graphic picture of life in the "Great Babel." Let us be thankful that our lot is cast in the free and open fields, far from such scenes of tumult, confusion, and feverish unrest:

"To a stranger, nothing is more impressive than the wonderful activity of New York life. Everything moves with a maelstromic rush and an oceanic impetuosity. The omnibus leaps along Broadway with a spasmodic celerity, drays dash along the thoroughfares with the defiant velocity of Jehu's storm-driven chariot wheels; ferry-boats dart to and fro with a puff and a snort and a scream; men absolutely rush along the streets like furious pismires in an upturned ant-hill; railroad cars sweep by at the daring hand-gallop of flying artillery upon a gore-drenched battle-field. Go into a hotel—men rush to the table, scramble into seats, gulp down the drinkables and cram down their meats, champing with the resounding mastication of a famished pig-sty, and are gone before you can realize that the meal has begun. So into a factory—you are brusquely addressed with the pithy ellipsis, "Serve you to-day, sir?" If you reply that you are merely looking around, around you may look till doomsday, but not a word from agent, or operative, or hand-craftsmen can you get, unless introduced by some well-known acquaintance. You hear the incessant puffing of fire-fed engines; you feel the tremulous agitation of whirling wheels, resounding forges, clanking anvils or whizzing saws. Every man seems running a race with the machinery around him. A nod might lose a link; a look might drop a stitch; a salutation might sacrifice a bobbin or snap a thread. Stop into a store on Broadway—proprietors rush, clerks rush, draymen rush, porters rush, customers rush; men buy a yard of ribbon with a mad anxiety—women snatch a scrap of cambric with a hurried impetuosity. Thus this wondrous intensity of life goes on. Without cessation, from year to year, only increasing, forever this sweeping tide of humanity presses onward to the same goal—success in making money. Gold is the

god, and never had Jupiter more loyal worshipers. But do not understand me as saying this of all. Here are good men, zealously laboring for the salvation of men's souls; enterprising men, earnestly working for the general advancement and good of society; learned men persistently striving for the reason why; artistic men steadily laboring to make something beautiful and pure and true; in fact, here are all kinds of men, and women, too, from the highest to the lowest—from the best to the worst. Such are some of the impressions made upon the mind of a country cousin, accustomed all his life to the quiet felicity of rural happiness."

LADIES DRESSES—FIRE!—A correspondent, says the *Petersburg (Va.) Press*, writing to us on the above subject says, after mentioning the recent death of a young woman in Richmond, by the extended use of crinoline, (which had taken fire,) that such things may be expected to occur every day as long as tyrant fashion causes the women to hedge around their persons as they are now called to do. The only way is to try and mitigate the evil by finding out some preventive when the catastrophe occurs. Our correspondent, an eminent medical gentleman, says on this subject:

"Several hundred stuffs have been recommended to guard the texture of linen, cotton, &c., against combustion, but, as the safest and surest, and not injuring the cloth, (like borax and alum will do,) the best German chemical authorities have lately suggested the phosphate of ammonia—a stuff which can be obtained from the drug store—and will secure all kinds of texture, even paper, from ready ignition and blazing. Two ounces dissolved in one quart of water and applied to the cloth, either alone, by saturating the same with the mixture or by admixing it to the starch, will answer the purpose. How many lives that fell the victims of exploding campheine lamps could have been saved by the general use of a simple remedy like the above-mentioned. we leave the reader to imagine for himself."

Following may be of service as an application to agricultural implements, machinery, &c., exposed to the action of water:

ALLOY FOR SHEATHING SHIPS.

A method is proposed for protecting the bottoms of iron ships from the action of sea water, by the use of a composition of litharge, made into a smooth, thin paste, with turpentine, to which is added an equal weight of resin. The whole is then put into a close iron vessel, placed over a fire, naptha added through an aperture in the lid from time to time, and the boiling kept up slowly for about two days, until the whole has assumed a tenacious, andhesive character, and consistency. It is then fit to be applied to the iron of the vessel, as a primary coating. A second coating is given to the iron with a composition of resin, combined with one-fifth of an oxyd of mercury and powdered charcoal mixed in turpentine. This outer coating fills up all cracks or paps left in the first application, and the nature of the composition is stated to be such that it prevents barnacles adhering to the iron, and resists corrosion.—*Boston Com. Bulletin.*

FKeep an eye to your horses' shoulders; as the weather grows warm, they will scald. Pad your collars and bathe the shoulders with cold water, or alum and vinegar solution.

Stock require a good deal of salt at this season—add ashes, lime and sulphur, occasionally, and it will have a good effect.—*Farmer & Planter.*

**SUGAR MAKING---THE NEW PROCESS OF
Col. Stewart.**

The Planters' Banner, of Franklin, La., says:—As an item of news effecting the sugar interest, we transfer to our columns the following letter to the New Orleans *Bee*, from J. B. Avequin, Esq., a chemist of no ordinary merit. From its perusal it will be seen that the writer fully endorses the new discovery for the manufacture of sugar by the means of sulphurous acid gas being applied directly to the cold cane juice, and recommends it to the serious consideration of the sugar planters of Louisiana. Col. Stewart has already disposed of rights for his process in the Island of Cuba amounting to \$55,000. The new discovery is the prevailing theme of conversation among the sugar growers, and Prof. Riddell's comparative analysis has been translated and circulated throughout every portion of that Island. From the lights now before us we have no hesitation in saying that the new discovery is destined to supersede all other processes now in use. Here is the letter:

NEW ORLEANS, April 18, 1859.

To the Editors of the Bee—Gentlemen:—As the columns of your valuable paper are always open for the publication of useful discoveries, and especially for such as concern the interest of Louisiana, permit me to direct the attention of sugar planters to a new process for manufacturing brown sugar recently practiced by Col. Stewart, of Oaklawn, parish of St. Bernard. Having had an opportunity of examining sugar thus prepared at the office of Col. Stewart's broker, in New Orleans, I was struck with its fine quality. I had never beheld Louisiana sugar with so rich a grain, so pure a quality, and so beautiful a color. Having for many years been engaged in the examination of the sugar cane, the manufacture of sugar, the various processes and apparatuses employed more or less successfully in this pursuit, I resolved to institute a chemical analysis of the article obtained by Col. Stewart's process; and for this purpose, at the request of several friends, I repaired to Col. Stewart's plantation, and selected, in person, various specimens of sugar and molasses from the surgery.

The process in question—that is the process employed by Col. Stewart—is based on the direct introduction of sulphurous acid into cold cane juice, immediately after its extraction from the cane, and before it is subjected to defecation. This mode of treatment has proved completely successful in the hands of Col. Stewart, as is incontrovertibly demonstrated by the superior quality of the sugar. A splendid, dry, hard, finely tinted grain is what is most esteemed in this particular branch of industry, and we may assert boldly and unconditionally that a better and a more beautiful sugar than that of Col. Stewart has never been seen in the New Orleans market.

Certain persons, instigated by jealousy or malevolence, have published statements in the daily journals to the effect that by this process free sulphuric acid (oil of vitriol) is formed; that it remains united with the sugar, is injurious to health, and other frivolous objections which it is unnecessary to repeat. We can conscientiously declare that these assertions are wholly unfounded, and that one must be ignorant of the very elements of chemistry to speak and write such absolute stuff. We are aware that by the direct introduction of sulphurous acid into cane juice a very small quantity of sulphuric acid is formed; we know, too, that the very same result is occasioned by the use of the *bi-sulphite of lime*; but this minute proportion of sulphuric acid is neutralized by the lime-water added during

the process of defecation; and thus we obtain the *sulphate of lime* which rises to the surface in the thick green scum, or contributes to form the crust in the evaporating pans and the steam tubes. In either case the accident is of little consequence, and cannot impair the value of Col. Stewart's process.

I have examined and analyzed Col. Stewart's sugar with the most minute attention I was capable of bestowing on the subject, and I declare openly that it is a most superior article—in fact sugar, *par excellence*.

We know that Louisiana sugar made by the old system, even though the bi-sulphite of lime is used in the manufacture, cannot be exported to Europe, in consequence of the weakness of the grain. Even the transportation of Louisiana sugar to New York and other Northern cities is sufficient to cause its deterioration, to the extent of partial liquefaction. Such is not the case with the admirable brown sugar manufactured by Col. Stewart, for it may be shipped to all the countries of the globe without being exposed to this source of deterioration. We are satisfied this sugar might travel round the world and return back to New Orleans *in good condition*. To our mind, as brown sugar, it is perfect, and of remarkable purity. It contains none of the salts of potass, nor of lime, is free from gelatinous silica, and other organic matters which generally vitiate Louisiana sugar. Certain varieties of this sugar contain more than 20 per cent. of foreign substances. Col. Stewart's sugar has none, or next to none. In short, *it is pure sugar*.

As the process employed by Col. Stewart enables him to add a large quantity of lime in the defecation of his cane juice, the molasses yielded by this sugar is consequently all the purer. It immediately removes the phosphates of lime, magnesia, and the gelatinous silica, and the greater part of the organic matters usually contained in every variety of cane juice. His molasses is less viscous and less liable to fermentation than that derived from sugar manufactured by the usual method. The chemical analysis of this molasses convinces me that it is purer, and may be longer preserved than the ordinary molasses. The molasses usually obtained from Louisiana sugar contains an average of about 5 per cent. of the salts of potass, of the acid phosphate of lime, of the phosphate of magnesia, of gelatinous silica, and of azotized organic matters. That of Col. Stewart has only about, 3 per cent. by weight of foreign substances, and contains only a few of the salts of potass which exist naturally in cane juice, and which it is impossible to destroy by any known chemical process. All other substances existing naturally in every variety of cane juice are eliminated by Col. Stewart's discovery.

In one gallon of molasses yielded by sugar made from Col. Stewart's process there were only 188 grammes of saline and organic matters. The molasses produced by the ordinary processes of sugar-making contains more than double the quantity.

I conclude, therefore, that the process employed by Col. Stewart is worthy the serious attention of the planters of Louisiana.

J. B. AVEQUIN.

HOW TO MAKE A MORTAR IMPERVIOUS TO WET.—Provide a square trough, say 8 feet by 4 feet by 1 foot 4 inches; put a quantity of fresh lump lime in; add water quickly. When the lime is well heated having assisted that operation by frequent stirring, add a quantity of tar (the heat of the heated lime melts the tar,) stir it well taking care that every part of the lime is intimately mixed with the tar; then add sharp sand or crushed clinker, and stir well as before, after which, in about twenty hours, it will be fit for use.

**MODEST CORRESPONDENTS---CHINESE
Sugar Cane---Sweet Gum Trees, &c.**

EDITOR SOUTHERN CULTIVATOR—I suppose you but seldom receive fault-finding communications for your journal. I have concluded to make up a small bill of complaints—not against the *Cultivator* directly (for I suppose that I am not a whit behind its warmest friends in admiration of the valuable information it contains), but against the practice of many of your correspondents. In the first place, some of your correspondents that write as sensible and every way as well as there is any need for, will consume much time and space in making apologies, such as “I am not accustomed to write for the press,” “I waited for a more experienced hand,” &c., just as if all the readers of the *Cultivator* were literary or learned men and all sneering critics at that, whereas I suppose that most of us would not more than detect a palpable violation of English Grammar. This may be justifiable modesty, but too much of it does harm, I think. Again, another numerous class of correspondents write some of the best pieces, and most interesting, over fictitious names. Now, I can see no use for that course in an agricultural paper, and have no doubt but many good and timely communications have failed to make an impression for want of a proper name to back them; for it has much the appearance of a novel, or it may be even worse—it may be a cheat.

But to the subject that directly induced these reflections:

In the June number of the *Southern Cultivator*, for 1859, pages, 174-5, is a communication over the signature of “Sylvanus,” Sumpter county, Ala., (no Postoffice) that I feel some interest in, and as I am a cultivator of the Chinese Sugar Cane, I have no doubt but he could give me some valuable information, but for want of his address I have no means of getting it (I fear) in time for the present crop.

The information wanted is: first, the proper time to cut the cane to make the largest yield as well as the best article of Syrup. I have cultivated the cane and made Syrup for the last two years, and have a crop growing now, and believe that it pays better to the amount of home consumption than any crop I raise. I feed my hogs on the green stalks from the time the heads turn dark, and they do well, and I cut the heads from the cane that is ground, and house them for the cattle in winter, which is also good, and make plenty of Syrup for family use, and sold two barrels last year at sixty cents per gallon. I have made the best Syrup that I have seen, but am satisfied that it might be made better. I clarify the first with lime, and the next with soda, which was much better; yet there is something wrong, for although it is palatable, and, I think, perfectly wholesome, yet a child that eats it lavishly at almost every meal, keeps his teeth always stained, and I fear will finally cause them to decay. I should like to know if Sorgho Syrup has a bad effect upon the teeth, and whether he thinks that we can well afford to make Sugar for family use while we cultivate cotton principally as a crop.

To kill sweet-gum trees, instead of belting with an axe in the usual way, use the poll of the axe and pound it just hard enough to make the bark puff up, without breaking, forming a belt about six inches wide round the tree. Do this any time in summer—at the time of full moon may be best. Respectfully yours, &c.,

Wm. H STEVENSON.

DeKalb, Miss., June, 1859.

[We send you a pamphlet on Sugar Cane per mail, and hope you will find it useful.—Ed.]

**WHEAT, RYE, OATS---DESTRUCTIVE WORMS,
&c.**

EDITOR SOUTHERN CULTIVATOR—The wheat crop is almost a failure in our section, this season. I manured a ten acre field with guano and stable manure last year and it yielded me four hundred bushels of corn. I sowed it in wheat last fall (one bushel to the acre) and have only been able to save five bushels from the ten acres of land. Some of the wheat ripening early and the other being green, I desired to let it stand until all was ripe for seed and most of the early ripening fell down before the latter was ripened.

In hauling in the manure, some rye grains were scattered in the field; they came up and grew finely and after heading and the grain commenced filling I found a small horny worm destroying full half the grains of the rye, eating into each grain from the outside and remaining on the head from one to as many as five to each head, measuring from a half to three-quarters of an inch in length, the diameter about the same as a full grown grain of wheat. There are some stalks of Oats in the same field, but the worms have not committed their depredations on anything but the rye, webbing themselves up after eating all, or nearly all, the grains.

I have bottled a few heads of rye, with several worms thereon. One of the worms has produced a pretty, little, harmless-looking fly.

Will some of your correspondents inform me if they have known or heard of such an insect devouring rye to the same extent, and oblige

Yours truly, W. S. SEN.

Gum Creek, Dooly County, Ga., May, 1859.

FALSE PRIDE.—“Uncle Jeems,” writing from Charleston, S. C., to a country paper, notes the arrival in that city of two school teachers from the North, and remarks:

We have much available talent in the South, but I fear there is too much pride in the way. I can see no more discredit in a female teaching for a livelihood than for her husband to be working for a living. There are, I fear, many young ladies of education, who, while they might be contributing to the dignity and independence of the South, by engaging in some occupation where they are needed, though they may feel ever so patriotic, allow us to seek the services of those North of us, whose interests must be more or less antagonistic to our institutions, simply because a false pride will allow them to imagine that dignity and a crust are preferable to anything assimilating to servitude. This is a great error. True dignity arises from the ashes of the spot on which we build the fires that illumine and cheer, and warm the friends and offspring of the friends who surround us. “To do good and to communicate, forget not,” is an injunction of Holy Writ; and it would be well for us to shake off our lethargy, and rise to a true knowledge and sense of our position and duty.

STRENGTH OF THE CAMEL.—The *Mobile Advertiser* says:

“A trial of strength was made with one of Machodo’s camels yesterday afternoon. Two bales of cotton, weighing together about 1100 pounds, were lashed together and placed upon his back, with which he marched off apparently as unconcerned as though they were not there. This was not one of the large camels.”

☞ Could every man be always impressed with the solemn fact that his life is short, and the labor which he ought to accomplish great, he would more than double his present rate of intellectual attainments and material progress.

A GREAT SOUTHERN ORCHARD.

A very observing correspondent of the Hartford (Ct.) *Homestead*, gives us the following description of the mammoth orchard of Col. JOHN HEBRON, of Warren county, Miss. What other planter of large means, will be the first to follow this noble example?

I saw so much of fruit culture in this country, while here a few weeks since, that I determined to re-visit it, at my earliest convenience. This plantation is deservedly celebrated in all this region for its pear and peach orchards, and is well known among fruit sellers from Chicago to New Orleans. It lies about three miles north of the Jackson and Vicksburg Railroad, and about nine miles east of the latter city. There is nothing peculiar in the soil or location to have made it congenial to fruit. Any other equal number of acres in the county would probably show as satisfactory results could they have similar treatment. The road hither leads along one of the tributaries of the Big-Black River, a pretty stream for this part of the country, and rejoicing in comparatively clear water, when it is not swollen by rains. On either hand are the steep hillsides, peculiar to this county, broken in many places with gullies, but exceedingly fertile wherever the seed can find lodgment. The bottom lands, where they have not been cleared, are covered with timber of enormous growth, so large and so tall that one accustomed only to the second and third growth of New England farms, is overwhelmed with astonishment, and finds it difficult to pass by. The banks had caved, in many places, revealing a clean section of the soil, for eight or ten feet deep. One could see in the three or four feet of alluvial deposit, the secret of the tall trunks, and massive foliage above.

The approach to the mansion is through a lane some two miles from the highway. The soil has been subjected to the careless cultivation of the South, cotton and corn in endless succession, without manure or the turning in of green crops. The vegetable matter in the soil is pretty much used up, and the fields in many places look yellow and barren. It was a delightful contrast to the awful monotony of cotton fields, to come to the borders of this plantation, where a pear orchard begins, and stretches in unbroken succession for a half mile or more to the mansion. The proprietor lays claim to

THE LARGEST PEAR ORCHARD IN THE COUNTRY.

It covers a hundred acres, and is extending its borders every year. He is so well satisfied with the profits of fruit growing, and finds the market so much beyond his ability to supply, that he is gradually curtailing his other crops, and giving his attention to fruit.

Col. Hebron is a Virginia gentleman of the old school, and first came to this country in 1836. He immediately began to plant fruit trees, without any further thought than supplying his own hands and stock. The peach trees raised from the pit were loaded with fruit, year after year, before he thought of selling them. At length a colored man, who was acquainted with the New Orleans market, bought five barrels of him for fifty dollars. When he learned that the speculator had sold them for twenty-nine dollars a barrel, his eyes were opened to a better business than raising cotton. There was a call for trees as well as fruit, and for apples and pears as well as peaches, until the nursery and fruit business has taken the lead of cotton. The supply of fruit trees first came from the North, but were not found to be well adapted to the climate. Southern varieties, grown upon stocks raised here, uniformly give better apples, and seedling pear stocks do much better than Northern trees. The varieties of pears most largely planted are the Bartlett and Beurre Diel. They grow under ordinary cultivation to a much larger size than at the North, and are said to be of equal-

ly fine quality. The first pear trees were put out in 1840, but the larger part of the orchard is not over eight years old. The trees are now set at twenty feet apart, and the ground between is cultivated and cropped principally with cotton. Though this cropping does not seem to have marred the result in this instance, we apprehend that the time is not distant, when the trees will show their need of the aliment that has been abstracted by the hoed crops. The only preparation of the soil for planting the trees is plowing and preparing a border of compost from the forest where the tree stands.

THE PEAR BLIGHT.

The pear blight is visible in all parts of the orchard, and it remains to be seen, whether this fruit will be more free from disease in this climate than with us. The tree unquestionably grows more rapidly, bears earlier, and gives a larger fruit. This blight, it is claimed, was occasioned by a severe frost, on the 5th of April, 1857. It was so cold that all the fruit in the region was cut off. Many of the trees were killed down to the roots, and the majority of them were more or less affected. The Bartletts suffered more than other varieties. This may be owing to the fact that little attention has been paid to this fruit, or to a change of climate, owing to the clearing up of the forests. It is certainly to be apprehended, that as these shelters are removed, the climate will be more liable to sudden changes, and blight will be one of the hindrances to pear culture, even in this favored region.

The orchard was fast becoming remunerative when it was overtaken with this calamity. From two hundred and fifty trees, five thousand dollars worth of fruit were sold in a single season. They are put up in boxes of three pecks each, and sold for four dollars, delivered at Vicksburg. The whole amount of sales for all kinds of fruit reach seven thousand dollars in favorable seasons. The trees are now in bloom, and give promise of a full crop.

A PEACH ORCHARD.

There are twenty acres occupied with peach trees, that have been planted three years. They are now thick set with fruit, about the size of cranberries. The trees are all of a few select varieties, so as to give a succession for market from the 10th of June till October. This long season of the peach crop gives the Southern fruit grower a great advantage over the Northern. The pears come nearly a month earlier, and continue later, so that with a suitable selection of varieties, there would be no difficulty in sending them to market for seven months in the year. The peach is more generally planted in all this region, and from what I can learn, in all the upland districts of the South, than any other fruit tree. They appear uniformly healthy, and all the trees that I have noticed in this and in the adjoining county, have been loaded with fruit. Until quite recently, the South had had few nurserymen, and the peach has been almost uniformly propagated from the stone. On the contrary, almost all our trees have been propagated in nurseries by budding. Even those who have raised their own trees, have budded them. The stones of such peaches as are marketed, generally picked before they are ripe, are planted for stocks, both in the nursery and in home culture. The facts are, that all over the North, both with the nursery and home grown trees, the peach is short lived, and hardly pays for planting. It would be, perhaps, too much to say, that this diseased condition comes of the mode of propagation, but it certainly looks very much like it. The facts certainly ought to be studied by our fruit growers. It is an experiment worth trying, to plant peach stones from Southern plantations, where they have been grown for generations from the stones, and see if we cannot introduce healthy stocks. If this fruit can be restored to its former health and productiveness, it will be worth millions of dollars to Connecticut, to say nothing of the larger

States. Oh! for the peaches that we saw when we were boys, forty years ago, beautiful to the eye, and good for food, the product of long lived trees, and that, even in old age were fat and flourishing.

THE NURSERY BUSINESS.

The nursery business now receives a large share of Col. Hebron's attention. The principal trees sent out are apples, pears, and peaches. The sales have gradually increased from two thousand to fifteen thousand dollars worth of trees in a season. A taste for fine fruits is rapidly spreading, and the planters of the State are beginning to appreciate the advantages of their position. The state and county agricultural societies, recently formed, will help forward this excellent work.

THE QUEEN OF FLOWERS.

The Queen of Flowers has a prominent place in the gardens here. Roses can only be seen in their perfection at the South. They have not only our favorite varieties in open culture, but the tender and half hardy sorts standing out all winter. They grow luxuriantly, and bloom early and late, and are of all charming colors that Nature ever suffers upon a rose petal. Thus far I have seen no disease upon them, and none of the insects that so torment the rose cultivator at the North. It is worth a journey hither, to see the queen of flowers in her own paradise.

STRAWBERRIES.

Strawberries are not yet grown at all for market. They begin to ripen in April, and the season lasts two or three months. From what I have seen of this plant, and its fruit, I doubt whether it is as much at home here as with us. It is not as generally grown, either in private or market gardens. The great objection urged to its cultivation here is that there was nobody to attend to the picking, and marketing. The business seemed to be regarded as rather above the grasp of African intellect, and the Anglo Saxon in these parts is shockingly afraid of work. Some cute Yankee, just out of his teens, and accustomed to the strawberry trade, and not afraid of soiling his fingers, would find a profitable field for his enterprise on this plantation. We shall charge him nothing for advertising the place.

THE PYRACANTHA.

The Pyracantha is cultivated here as a hedge plant. It is an evergreen shrub of glossy leaf, and very stocky habit. It is armed with sharp thorns, and makes an impenetrable fence. The plant is from the South of Italy, but is said to be hardy in England, and it is quite possible it might prove valuable for some parts of the Northern States. It seems to be everything desirable in a hedge plant. I have been surprised at the number of trees and shrubs used for hedges in the South. It is, doubtless, owing, in part, to their circumstances. In most parts there is no stone for fences, and the wood used for rails rots with astonishing rapidity. I have seen the Arbor Vitæ, the Cherokee Rose, the Osage Orange, the Privet, the Viburnum, the Ligustrum, the Cape Jessamine, and the Japonica, under training, and all making good fences.

AGRICOLA.

Warren County, Miss., March 30, 1859.

 A correspondent of the *Brownsville (Ark.) Echo* makes the following cheerful exhortations to his brother farmers of the West:

IS THE EARTH WEARING OUT?

Mr. Editor:—How often are agricultural improvers told that mother earth is in her decline? The earth is wearing out. Some unthinking farmers will say there is no use of improving the soil, for it will not pay for the trouble. True, some hills are bare, naked and desolate in their sterility, valleys are impoverished and refuse to put on

nature's green livery, with which richer spots so exuberantly array themselves. Trees and herbage have disappeared, but still the earth is young—young in the measure of years—young in her capacity for increased production on every acre of her wide domain. Every atom which the Creator cast from his plastic hands at the dawn of time, still has its visible existence somewhere on this globe, and is doing its part of the reproduction which nature is so constantly employed in. Nothing is wasted in nature's laboratory. The dead leaves from the trees, the withered grass of the prairies, all go to make up for those drains which vegetation calls forth from the earth.

What if the mould of our new lands is washed down the brooks and rivers to the oceans which encircle continents? The sea, in return, gives back its rich treasures to the land which has been robbed; and though it comes from the islands of the far south, it nevertheless contains all the elements which are requisite to restore the fields which have been exhausted by tillage.

There is an inscrutable wisdom in Providence which is beyond mortal comprehension. Wherever nature has a want there will be an agent of supply ready at hand.

Whenever it becomes the practice of rural minds to apply the intellectual force with which they are gifted, to devising the proper remedies for natural defects of soil, or wasted fertility—then may we expect to see the earth, yea, even those vast prairies, bloom like a bride amongst youth, and we will hear no more the unwelcome voice which bids her sons despair as they stand in the furrows of life.

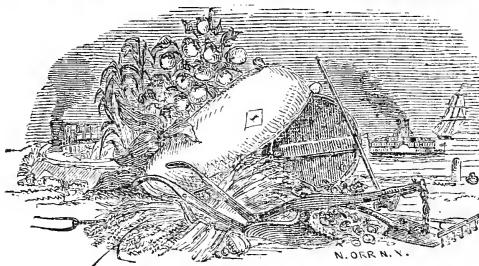
Yes, the earth is still young—glad and joyous in coming years will be the march of time along her teeming valleys. Fields of golden grain and snowy fleece from her increased production, will cause the countless millions yet to enter life to bless those who have not stood idle upon the sod. Let us be up and doing. The bog, the marsh, and pools of stagnant water, sending forth the arrows of pestilence and death, can be made to smile with health and beauty by a very trifling outlay by the State with her surfeited swamp land funds in her coffers. Then, my countrymen, we must do our part in the work of local preservation. It is a mandate written by Deity amongst the laws of nature, and he who disobeys, instead of plenteous harvests reaps only disappointments and vexation of spirit. Then let each and every one come up to the Fair at Des Arc and other places next fall with something of his own production. Let us not be so far surpassed by our fair and lovely countrywomen as we have heretofore been. Let us, at least, attend the Fairs next fall and see their fine productions; to surpass them we cannot, as they are and have been foremost in all great and patriotic enterprises.

B.

THE DIGGING OR SPADING FORK.—We fully agree with a correspondent of the *Boston Cultivator*, in his estimate of the Spading Fork. It is an indispensable tool in the garden, orchard or vineyard. "P. B." says:

"I am in the full tide of experiment, 'the Fork vs. the Spade,' and want words to express the satisfaction on exchanging the one for the other; in fact, the half has not and cannot be told in its favor; the saving of time and labor being, when compared with its pulverizing quality, as three to one, and particularly on wet or stony soils, the land being thoroughly broken up from bottom to top, and requiring not the use of the rake."

TEST OF GUANO.—An exchange paper says: "A bushel of guano, if pure, weighs almost exactly seventy pounds; if adulterated with light substances (which is rarely the case,) it will, of course, weight less. If clay, marl, sand, &c., have been used, they will be materially increased, and so far as this test applies, gross adulterations will be easily detected."



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., No. 7:::::::::::JULY, 1859.

ANSWERS TO CORRESPONDENTS.

PATENT OFFICE REPORT.—T. W. W.—It will be necessary for you to address one of the members of Congress from your State. We have no copies of the desired number, and if we had, we could not "frank" them to you.

STEAM ENGINES.—A. P. S.—We can only refer you to the advertisements on our cover. We think a 4-horse power would be sufficient for your purposes. One of our exchanges says:—"Ericsson's caloric engine of five-horse power is gradually coming into use, at the North and East, in foundries, mills, and printing offices, and other establishments where a reliable, safe and easily managed motive power is needed. There is no danger possible from it of fire or explosion. One of the engines has been introduced in a large printing office in San Francisco, and we see that they are to be introduced into Cuba."

SPINNING MACHINES.—L. O. S.—We do not know of any but Henry's that would answer your purpose; and we have no personal knowledge of this one. The editor of *DeBow's Review* says of it:—"The matter is no longer an experiment. Many planters have adopted the process the present season, and have ordered the necessary machinery. Others are preparing very soon to enter the field. We have ourselves seen the yarn, purchased from a plantation where the machinery has been in action, in handsome mercantile condition, and of the most superior quality, by one of our wholesale houses, and learn that the market for it in New Orleans is unlimited. It will be purchased as fast as received. We sincerely commend this great matter to the attention of the whole planting community, as one by which it is demonstrated they can double, at least, the net revenue of their estates."

WILSON'S HORSE POWER.—L.—We consider this a very good power. It is a Southern invention. Address Wilson & Bros., Athens, Ga.

"COUNTRY LIFE."—J. H.—Send us a copy and we will determine. It is very hard to say much that is "new and interesting" on this theme.

QUESTIONS.—S. A. T.—We must decline answering your questions by letter. We really cannot afford to spend an hour or two daily in replying to such queries, and then be obliged to pay our own postage. Agricultural questions of general interest may be asked and answered through the *Cultivator*.

GRAPES FOR THE SOUTH.—C.—See "Grape Culture," which we send per mail for 12 cents in stamps. We will

publish a select list, including all the best of the new varieties, in a future number of the *Cultivator*. The Grape you describe is probably the *Warren*. Send us a leaf in a letter, and we will let you know.

LIME.—R. A. S.—Slack (or slake) your lime by sprinkling it with brine or salty water, and apply at the rate of 20 to 40 bushels per acre.

HORSE HOE.—WM. L.—This is just the thing for your Turnip crop. It may be had at the hardware stores in all the leading cities. For varieties of Turnips, &c., see "Hints for the Month."

DORKING FOWLS AND PHEASANTS.—MRS. H. C. B.—We do not think either of these can be obtained in this vicinity. The Dorkings have not succeeded well in the South; and you cannot raise Pheasants successfully in close confinement. In England they are kept in the large parks of the wealthy classes, in a half wild state, in which condition they thrive well.

STRAWBERRIES, APPLES, &c.—WE are indebted to P. J. BERCLMANS, Esq., (our successor at "Fruitland") for a liberal supply of Strawberries, Apples and Irish Potatoes—all of fine appearance and superior quality. The grounds at "Fruitland" are now in excellent condition, and well worthy of a visit from all lovers of fruits and flowers. See the article of Mr. BERCKMANS, in another column, describing a rare and beautiful Magnolia—a number of new Roses, &c.

IMPORTED MESSENGER AND HIS DESCENDANTS.

A gentleman, fully competent to the undertaking, is preparing a concise description and history of Messenger and his immediate descendants, for publication in the *American Stock Journal*. In order to this as full and complete as possible, all persons having any knowledge of these horses, are requested to aid in the matter, by communicating such facts as they may deem of interest. Information is particularly desired in relation to Mambrino, Chancellor, Whynot, Hamiltonian (Gen. Coles,) Plato, Tippoo Saib, Financier, Engineer, Ogden's Messenger, Bush Messenger, and others of which any person may have definite knowledge. Like intelligence is desired concerning any mares by Imported Messenger, and particularly as to the dam of Young Baishaw (sire of Andrew Jackson), the grand dam of Andrew Jacks on, the dam of Columbus, and of all mares by Imported Messenger which are in the pedigrees of noted trotters.

Communications should be sent as soon as practicable, and addressed to *American Stock Journal*, No. 140 Fulton St. New York.

THE "HEARTHSTONE CLUB" is the title of an association said to be composed of some of the most respectable matrons of New York. At this meeting recently, papers were read upon several new and useful household utensils, such as sewing-machines, carpet-sweepers, washing-machines, cooking by gas, &c., &c. The club embraces all subjects within the scope of domestic economy, including the management of servants, the reciprocal duties of masters and mistresses, &c., and bid fair to accomplish much good.

WRITE FOR THE CULTIVATOR!

THERE are two ways of fulfilling the above injunction: The first is, to enclose your name, address, and dollar, to the publisher, and secure the monthly visits of our journal for the entire year. The second is, to jot down for us in as brief and clear a style as possible, any new fact or suggestion having a bearing upon the improvement of Agriculture, Horticulture, Stock Raising, or Domestic Economy, &c., &c. We hope all the Planters and Farmers of the South, will do both, and thereby greatly increase the circulation, value and influence of the *Cultivator*. We need not say to our friends everywhere that our columns are always open to receive the results of their observations and experiments, and that we are profoundly grateful for the very valuable contributions constantly sent us. And we would say to those who are not in the habit of writing for the press, *make the attempt*. You need not delay for a supposed want of literary ability; fine writing is not expected or desired; plain facts, such as occur in the experience of all, are wanted, and if they are only dressed in the homely, every-day garb in which farmers usually clothe their ideas in conversation, it will be sufficient. A little practice will soon render it easy to write, and by habit it will even become a pleasure. One of the most distinguished contributors to the agricultural papers of the day, (says a contemporary) learned to write after he was forty years old, and while engaged in the practical labors of husbandry.

We invite inquiries and suggestions on all subjects connected with agriculture, which we will endeavor to answer to the best of our ability. Or, lacking the necessary information, ourselves, we will cheerfully yield the right of reply to our correspondents. The attention of our readers, generally, is particularly called to this, and those who are in possession of any information not shared by the public, are requested to impart it for the benefit of all.

GRAPE CULTURE AND WINE MAKING.

At the June meeting of the "Beech Island Farmers' Club" this interesting subject was discussed by several of the members and invited guests, and the general sentiment seemed to be that no new object of agricultural enterprise is so attractive and promising as the culture of the Grape and the Making of Wine. Various modes of preparing the ground, planting, training, &c., were brought forward and discussed; and the experience and practice of many of the speakers fully detailed. It was conclusively shown that even at the rate of 50 cents per gallon for the juice, the growing of Grapes on our poor hill-sides has been made far more remunerative than the production of any of our staple crops, and there appeared to be a general determination among all present to extend the culture of the Vine. We are rejoiced at the cheering accounts which we hear from all quarters of the rapid spread of the vineyard spirit, and hope it will continue to progress.

To CORRESPONDENTS.—Several communications of interest, received too late for present number, will appear in our next.

FLOODS IN LOUISIANA, CROPS, &c.

A planter, writing from the neighborhood of Milliken's Bend, La., under date of May 7, says:

"The angry flood continues to sweep this country, leaving it destitute of corn, cotton, stock, &c. I have 400 acres of cotton, and 100 acres of corn from 2 to 10 feet under water; but I have 600 acres of cotton and 150 of corn out of the water, which is better than any other place on this Bayou.

"My stock are all huddled together in a lot, and are doing badly. It is really awful to behold." G."

Extract of a letter, dated Anaqua, Victoria county, Texas, June 3d:

Editor Southern Cultivator—The farmers of this (Victoria county, Texas) portion of the county are beginning to feast on roasting-ears and feel large (perhaps) to see cotton bolls and half grown bolls in their fields. But on the San Antonio River cotton bolls are scarce, and even blooms are not very plentiful. There was a heavy hail here on the 7th of last month, that beat cotton leafless and killed a great deal that had to be planted over again. I see an account published in the *Texian Advocate* of an overflow of this (San Antonio) River. I must say that on this portion (lower) of the River there has been no overflow, except on the lowest portions of the bottom lands. The county is entirely healthy, I believe, and if the season should prove to be favorable on cotton from this on, Western Texas will turn off fine crops this year. Crops of corn are generally very good and will mostly make without any more rain on them.

Yours, &c., J. B.

Extract from a letter dated Stantonville, McNairy county, Tenn., June 10th:

Editor Southern Cultivator—Our Wheat harvest is nearly over; we have made an average crop. Oats are a total failure, owing to the rust. Cotton looks well; we have a fine stand. Corn is good; we have had no rain for nearly four weeks. The locusts appeared here in great numbers about four weeks ago, but have now disappeared. T. R. B.

NEW ADVERTISEMENTS.

THE attention of our readers is particularly directed to the following new advertisements, on the cover:

Brahmin Cattle, C. G. McHatton.

Fertilizers, &c., &c., Pomeroy & Marshall.

Turnip Seed, J. M. Thorburn & Co.

Augusta Seed Store, J. H. Service.

Round Hill Water-Cure and Hotel, H. Holsted, M. D.

A LATE KEEPER.—A few days since (June 13) a friend handed us a Shockley Apple of last year (1858) in an excellent state of preservation. It will also be recollect that we received seven or eight varieties of Southern Winter Apples in fine keeping, a month since (May 10). Who dare say, after this, that the South cannot raise her own winter apples? Echo answers: "Nobody!"

A PROPER ESTIMATE.—The Editor of the Augusta *Business Director* has a plain, pungent and pithy way of expressing his sentiments. Hear him:

The Southern Cultivator.—When you show us the man who can learn theology without the Bible, we will show the one who can farm—not a putter of seed in the ground—but farm, without the aid of the *Cultivator*.

"GRAPE CULTURE AND WINE MAKING IN THE SOUTH."—We can still supply copies of this little pamphlet per mail, post paid, for 4 letter stamps (12 cents)* Address D. REDMOND, Augusta, Ga.

*If any copies have failed to reach those who have sent for them, we will cheerfully forward them again.

CONDENSED CORRESPONDENCE.

WHITE OR RED CLOVER, &c.—Editor Southern Cultivator—I wish to know which is best adapted to this District, the White or the Red Clover, and where I can get pure seed, and what they cost per bushel. I also wish to know the time of sowing, and the best way to prepare the land.

I hope you, or some of your able correspondents, will please inform me what will prevent a horse from slobbering or frothing at the mouth. I have seen the remedy in your valuable journal, but I cannot find it again.

Yours, with respect,

ADDISON CLINKSCALES.

Abbeville District, S. C., June 6, 1859.

[Inquiries like the above we prefer leaving to be answered by other correspondents, as we wish to draw out as much as possible of the varied experience of our readers.—ED.]

CROPS, &c., ON THE SEABOARD.—An experienced planter, near Beaufort, S. C., writes us, June 4:

"I am planting Short Cotton as my principal crop this year, the Long staple proving too poor a business to be continued any longer than unavoidable. I have planted thirty acres of Mastodon, which I think the finest short staple that I have ever seen, although I thought that I had some uncommonly fine before.

"The fruit crop is only moderate. Madelaine Pears all gathered, and almost gone. Cotton is unusually backward, (both Long and Short) and Corn crops rather irregular. Rice very promising. I have just received one of Share's Hiller, Scraper, &c., &c., which I hope to see tried next week. It looks promising, but I have learned not to trust to looks. I am also expecting one of Sayre's Coulter Harrows, which I hope to find a useful implement.

Yours respectfully, R.

SALTY LAND—Editor Southern Cultivator—Some of our rich bottom lands that have been in cultivation for fifteen or twenty years, have for the last few years been very much injured by salt rising to the surface in many spots. We did not pay much attention to it at first, but it is becoming much worse, and literally destroying the production of some of our best lands. We have, to some extent, tried ditching and other experiments, all of which have failed to reclaim those salt spots. Now, Mr. Editor, can you, or any of your numerous correspondents, inform us through the columns of the *Cultivator* by what process we can reclaim this land? Let us hear from you on this important subject. S. F. R.

Black Jack, La., June, 1859.

[If deep under-drains will not carry off the excess of salt, we know not what will. Will some of our correspondents, who have had experience, give us a remedy? —ED.]

CORN, COB, AND MEAL MILLS.—Editor Southern Cultivator—Can you tell me where a good, cheap, and serviceable Meal, and Cob and Cob Mill can be purchased, one furnishing its own horse power?

How does "Rowe's Prize Crusher" answer; does it furnish its own horse power? An early reply is respectfully solicited.

Yours, very truly, C. C. S. P.

Smith's Point, Texas, June, 1859.

[We do not think Rowe's Crusher can be made to produce good meal for table use. Will not Mr. Rowe himself reply to these and similar queries? —ED.]

BOOKS ON SHEEP, &c.—Editor Southern Cultivator—As I design to go into sheep raising soon, on a small scale, I ask through your journal, the *Cultivator*, where

I can obtain a work on the raising of sheep, their treatment, diseases, &c., who the author, its price, &c.

Respectfully, your subscriber, E. R. M.
Moscow, Texas, May, 1859.

[See list of agricultural books in May number, (1859) page 153.—ED.]

MARKETING FRUIT, &c.—Editor Southern Cultivator—I have a fair crop of Peaches, mostly early varieties, and I desire some information as to the best mode of packing, shipping to New York, &c. Also, the name of a responsible dealer to whom I can consign them. I am a little over one hundred miles from Charleston, and about two miles from the railroad.

Yours respectfully, H. C.
South Carolina, June 8, 1859.

REPLY.—We do not know how we can better subserve the interests of "H. C.", and perhaps many other subscribers, than by publishing the circular of Messrs. DREW & FRENCH, No. 6 Erie Buildings, New York city. These gentlemen we believe to be honorable, upright and enterprising dealers, and the directions which follow are, in the main, correct:

PEACHES.—The growers of fine Peaches, either near by or at a distance, who can succeed in placing their fruit in this market in *good order*, may expect remunerative prices, but they cannot reasonably look for the extravagant rates of the last two years.

All things considered, the crate or slatted box is no doubt the best style of package for Peaches shipped to this market from South of the Delaware, especially where facilities exist for making them very cheaply.

From much experience and observation, we suggest for the Southern Peach trade slatted boxes of the following inside dimensions: One bushel each—length 23 inches; width, 11 1-2 inches; depth, 10 1-2 inches; with a partition of one-half to three-quarters of an inch thick, equi-distant from each end.

Two bushels each—length, 29 inches; depth, 14 inches; breadth 14 inches; with a partition one inch thick, equi-distant from each end. The bottoms, tops, and ends to be made tight—the sides of open slats.

The compartments thus made will contain, respectively, half a bushel in the former, and a bushel in the latter; and being nearly in the form of a cube, the same depth and pressure of fruit will be maintained in all positions of the package.

This is important, because boat-men and cart-men are sure to carry packages of this delicate fruit with great roughness, and in any shape that best suits their convenience.

Peaches, as well as Apples and other fruits, will stand long carriage much better if *well but not roughly shaken down, and filled so full that the lid or cover of the package will press down tightly upon the fruit*, thus keeping it from shifting or bruising by the motion of the carriage or rail car. For this purpose, tight instead of slatted covers are necessary.

Carriages and cars with well-adjusted springs should always be used for Peaches.

At the commencement of the season, and for very choice fruit, smaller packages would be desirable, holding say half a bushel; and it would pay well to wrap the fruit in paper clippings, or wrap it in soft white paper, as is customary with oranges.

Our experience indicates that if Peaches could be thoroughly cooled before packing, and then packed in very tight boxes, they would reach their destination in much better order than by the ordinary mode. Where there is opportunity to cool them properly, the experiment of tight packing is worth a trial.

The picking for a distant market requires much skill and good judgment. If picked too green, the fruit will be nearly or quite worthless, and if too ripe, it will decay before reaching the consumer. [See directions on this subject, in "Hints for the Month."—ED. So. CULT.]

To attain the right point, a careful and prompt correspondence is requisite between consignor and consignee, touching the time of picking, the state of the fruit when picked, its condition on arrival at market, state of the weather, incidents of the passage, &c.

A few years ago the idea of transporting fresh peaches from the interior of Georgia to this metropolis for a market would have been deemed utterly visionary. Steam communication has, however, in a great measure revolutionised the fruit and vegetable trade of our city. The period of supply of each variety is on the average doubled, thus extending to our citizens nearly through the year, luxuries formerly enjoyed but for a brief period.

The first arrival of peaches last summer was on the 29th June—thirteen boxes of one bushel each, from Charleston, which sold at \$8 to \$12 per box, and seventy-five baskets of half bushel each, from Savannah, sold at \$3 to \$4 per basket.

The receipts of the succeeding week were about four hundred and fifty bushels, and sold at \$3 to \$6 per bushel. In the height of the season the arrivals were from two thousand to four thousand bushels per steamer; one trip running as high as six thousand bushels. Prices ranged from 50c. to \$4 per bushel, according to quality and condition.

The springing up of this important trade develops new features, and involves commercial transactions of a higher order than the ordinary loose methods of transferring fruits and vegetables from the producers of the adjacent localities to the city consumers, and we think, from our large experience with this fruit, and our ample business arrangements, that we can satisfy those who may favor us with their consignments."

BERMUDA GRASS—PINE STRAW, &c.—*Editor Southern Cultivator*—Dr. Philips' numerous articles in favor of Bermuda Grass have influenced me to want to try it, seeing the great necessity for something of that kind. And as I am unacquainted with the Bermuda Grass, I will be thankful to you or some of your numerous correspondents for further information. I have been under the impression that Bermuda Grass did not seed, but have been led to a different conclusion from one remark by Dr. Philips in the last number of your journal. If it does seed, where can I get the seed, and at what price? and if it does seed, (although Dr. Philips says it will not pass under a hedge) will it not pass down the rivulets and into the creek bottoms?

2nd. When is the proper time to plant, and how?

3rd. Will pine straw alone, manure a light sandy soil? And if it will, which is the proper way to apply it, and how long until it will decompose so that the land will do to cultivate?

SUBSCRIBER JURIOR.

[Dr. PHILIPS will, doubtless, take pleasure in answering the Bermuda inquiries through our pages. Respecting pine straw—we prefer using it as bedding in our stables, and afterwards composting it before applying it as manure. In this way, it absorbs much urine and other fertilizing matter; but if applied dry it is a long time in decomposing, and of comparatively little value.—ED.]

HUNGARIAN GRASS SEED.—Can you inform me where and how I can get the Hungarian Grass Seed? I would like very much to get the seed if it is only a small package by mail.

Yours, &c., R. E. C.

Shelbyville, Texas, May, 1859.

[The seed may be ordered from V. LATATE or PLUME & LEITNER, of this city.—ED.]

RATS, MANGE, LICE, &c.—Ask some of your correspondents for an infallible Rat exterminator. Also, a remedy for mange and lice on hogs.

J. M. H.

Haralson, Ga., May, 1859.

OUR BOOK TABLE.

HINTS TO HORSE-KEEPERS; a Complete Manual for Horsemen. By the late HENRY WILLIAM HERBERT, ("Frank Forester.") Beautifully illustrated. New York: A. O. MOORE & Co., 140 Fulton St. 1859.

This last work of poor HERBERT, (left unfinished at his death, but completed by a competent hand) is in many respects, the most practical and useful that fell from his very forcible and prolific pen. It tells How to Breed a Horse—How to Buy a Horse—How to Break a Horse—How to Use a Horse—How to Feed a Horse—How to Physic a Horse (Allopathy and Homœopathy)—How to Groom a Horse—How to Drive a Horse—How to Ride a Horse, with chapters on Mules and Ponies, and an excellent treatise on *Female Equestrianism*, written by a Lady. With additions, including "Rarey's Method of Horse-Taming," and "Baucher's System of Horsemanship." Also, directions for the selection and care of Carriages and Harness of every description, and a brief, but satisfactory Memoir of the author. The whole printed in the best style and very handsomely illustrated. All Horse-Keepers should have this excellent book, and may do so by sending the small sum of \$1.25 to A. O. MOORE & Co., 140 Fulton St., New York.

FARM DRAINAGE. By HENRY F. FRENCH, of New Hampshire. Profusely illustrated. Published by A. O. MOORE & Co., 140 Fulton Street, New York. 1859.

This the first really complete American work on the very important subject of which it treats. It embraces the principles, processes and effects of *Draining Land*, with stones, wood, plows and open ditches, and especially with tiles; including tables of rain-fall, evaporation, filtration, excavation, capacity of pipes; cost and number to the acre, of tiles, &c., &c., giving to the farmers and planters of the country enough of scientific principles to satisfy intelligent inquiry, and plain and full directions for executing work in the fields, according to the best known rules. If it is true that nearly all lands may be benefitted by drainage, and that the richest and best portions of our country yet lie idle for the want of it, the value of such a thorough and practical guide as this book furnishes cannot be easily estimated. Every farmer and planter should possess it and practice its teachings. Price \$1.25 Address the publishers, as above.

HINTS TOWARD PHYSICAL PERFECTION; or, The Philosophy of Human Beauty; showing How to Acquire and Retain Bodily Symmetry, Health and Vigor; Secure Long Life, and Avoid the Infirmities and Deformities of Age. By D. H. JACQUES. New York: FOWLER and WELLS, Publishers, 308 Broadway. Price \$1, per mail.

This is a work which is destined to attract much attention, and awaken a deeper interest in the physical improvement of the race than has yet been manifested; as it

shows how certain and easy this improvement may be made by the use of the perfectly legitimate means therein pointed out. Its revelations of the laws of human configuration, on which symmetry and beauty depend, are not less interesting and important than they are novel and surprising.

It will be found deeply interesting to both sexes (but especially to women) and to all ages; and we commend it to all for whom health, strength and beauty have any attractions; to parents, as a guide to the right performance of their all-important functions and duties; to teachers, who may learn from it how to develop the minds and bodies of their pupils harmoniously together; to young women, who will not look in vain to its pages for the secrets of that womanly beauty and personal attraction which they very naturally desire to possess; and to young men, who will find it a manual of rules for the development of those high qualities of physical vigor and manliness which will command the admiration of their own sex no less than the love of the other. Illustrated with twenty plates and a large number of cuts, executed in the best style. Address the publishers, as above.

SUGAR MAKING FROM SORGHUM.—Messrs. HEDGES, FREE, & Co., of No. 6 Main street, Cincinnati, publish an interesting pamphlet of nearly 200 pages, containing "Experiments with the Sorghum Sugar Cane, Sugar Making," &c., with descriptive catalogue of Sugar making apparatus and agricultural implements.

Copies of this Catalogue will be mailed to any address on receipt of three letter stamps, by HEDGES, FREE & Co., of Cincinnati, Ohio

RAIRIE FARMING IN AMERICA, with Notes by the Way in Canada and the United States. By JAS CAIRD, M. P., author of "English Agriculture," "Letter on the Corn Crops," "High Farming," &c., &c. 1859.

This is a little book of travel and observation by an English gentleman, who seems to have a pecuniary interest in some of the prairie lands of the West. There is considerable information scattered through it, and it is, upon the whole, quite readable and pleasant. It is published by D. APPLETON & Co., New York.

SUGGESTIONS ON LANDSCAPE GARDENING. By CHARLES FOLLEN, Architect and Landscape Gardener.

THOROUGH DRAINAGE. By J. HERBERT SHEDD, Civil Engineer.

Both the above papers are comprised in a small pamphlet, from the press of PHILLIPS, SAMPSON & Co., Boston; and though the authors are, of necessity, obliged to condense their remarks into a very small space, they contrive to give us some very sensible hints and suggestions.

GRAPES: Cultivation of the Hardy American Grape Vine, with hints on How to Purchase, and What Varieties of Vines to Plant, &c. By JOSIAH SALTER, a Practical Grape Grower of Twenty Years experience.

This is a very excellent little treatise on Grape Culture as it should be practiced in the Northern and Middle States, and many of its lessons might be studied by our readers with profit. It may be had per mail for 15 cents in Post

Office stamps. Address JOSIAH SALTER. Rochester, New York.

"DISCOURSES ON A SHAMEFUL LIFE," and "A DISCOURSE ON THE EVILS OF GAMING," are two Sermons by the Rev. E. H. CHAPIN, D. D., of New York. The subjects under discussion are treated in the peculiarly forcible and eloquent manner of the author, and both Discourses are intended and well calculated to do good. Price 10 cents each. Published by THATCHER & HUTCHINSON, 523 Broadway, New York.

THE "SOUTHERN FIELD AND FIRESIDE," a Weekly Literary and Agricultural Journal. W. W. MANN, Literary Editor. Dr. D. LEE, Agricultural Editor. WM. N. WHITE, Horticultural Editor. JAS. GARDNER, Publisher. \$2 per year. Augusta, Ga.

This new journal is a very handsome Weekly of 8 pages, of the size and form of the New York *Ledger*. The first four numbers give abundant evidence of taste and ability in the different departments to which it is devoted, and we doubt not its interest and value as a Southern Family Paper will be well sustained. It starts under very fair and promising auspices, and we trust it will prove a success. Address the publisher, as above.

THE MICROSCOPIST'S COMPANION; a Popular Manual of Practical Microscopy. Designed for those engaged in Microscopic Investigation, Schools, Seminaries, Colleges, etc., and comprising Selections from the best writers on the Microscope, relative to its Use, Mode of Management, Preservation of Objects, etc., to which is added a Glossary of the Principal Terms used in Microscopic Science. By JOHN KING, M. D. Illustrated with one hundred and fourteen Cuts. Cincinnati: ROBERT CLARKE & Co. 1859.

The above is the title merely of a very useful and entertaining work now in press, a fuller notice of which will be given as soon as it is published.

THE GARDENER'S MONTHLY improves with every number, and will soon be indispensable to all cultivators who pretend to "keep up with the times." It is published monthly at \$1 per annum. Address the editor, THOMAS MECHAN, Philadelphia, Pa., or the Agent, V. LATASTE, of this city.

THE HORTICULTURIST has been so often praised in these columns that we need now only say that it is as "good as ever," and that no fruit grower or florist can afford to do without it. \$2 per annum. Address C. M. SAXTON, 25 Park Row, New York.

CAMELS IN MOBILE.—The steamer *Fashion* brought to Mobile on her last trip twenty-one camels. The *Tribune* says:

They are natives of the Canaries. Eight of them are to be taken to Dallas, by Mr. B. M. Woolsey, of that country. The rest are for sale here.

There can hardly be a doubt that these animals will be found very serviceable for certain kinds of work. For example, one of them can easily carry two bales of cotton on its back, at the rate of 25 miles a day over a road which would be impassable to an empty wagon drawn by a pair of mules. The cost of keeping them is very little, and in endurance, under labor or privation, no animal can excel them. They are as gentle, too, as a dog.

VINEYARDS NEAR MACON, GA.

THE Macon *Journal & Messenger* gives us the following sketch of Vineyards in that vicinity. We will perform a similar duty for Augusta in a future number. See, also, the Report of the Aiken Committee, on another page:

"We are gratified to see that some of our neighbors are making preparations to go into the cultivation of the vine on an extensive scale, for wine-making purposes.

"Mr. O. F. Adams, of East Macon, has now about three thousand vines, most of which are three and two years old, and bearing a considerable quantity of grapes. His grounds are in fine order, and he contemplates making a considerable addition to them next year.

"R. R. Hutchins has several hundred, and is making arrangements to increase his vineyard next year. His vines are mostly in their third year, and producing abundantly for their age. He has about fifty vines of the Scuppernong.

"John M. Fields has also a vineyard of about five thousand vines of two and three years old. Also several thousand cuttings now rooted, to be added next year. A majority of the vines spoken of, are the Catawba. The others, generally, Warrenton, Devereaux, Bland Maderia, a few Isabella, and some of varieties unknown to us.

"From these small vineyards, the product next year must be many thousand gallons of wine. All these vineyards are well located and cultivated, and vines in a flourishing condition."

JAPAN WAX TREE.—We are indebted to the Commissioner of Patents for seed of this tree, which we have carefully planted; and we find the following allusion to a native plant of similar character, in the *Clarendon* (S. C.)

Banner:

"It seems not to be generally known that we have a wax tree in America. The early settlers, we think, called it the 'candle-berry tree.' The substance manufactured from it strongly resembles wax. As the botanical name of the tree of Japan is not given, we cannot decide whether not it is the same as our American tree. There stood, a few years ago, a venerable wax tree, or candle-berry bush, quite near Brewing Church. It was some twelve feet in height, and bore a profusion of berries, from which a substance very similar to wax, was made in the mode indicated in Gen. Campbell's letter, as being employed by the Japanese."

ELDER TREE.—The *Herkimer* (N. Y.) *Journal* says:—"It is not known to many persons that the common elder bush of our country is a great safeguard against the devastations of insects. If any one will notice it will be found that insects never touch the elder. This fact was the initial point of the experiments of an Englishman in 1694, and he communicated the result of his experiments to a London magazine. Accident exhumed his old work, and a Kentucky correspondent last year communicated to the *Dollar Newspaper* a copy of the practical results as ascertained by the English experimenter. That the leaves of the elder, scattered over cabbages, cucumbers, squashes, and other plants subject to the ravages of insects effectually shields them. The plum, and other fruits subject to the ravages of the insects, may be saved by placing on the branches and through the tree branches of elder leaves."

Horticultural Department.

MAGNOLIA [GRANDIFLORA] GLORIOSA---NEW and fine Roses, &c.

EDITOR SOUTHERN CULTIVATOR—Among the newly introduced Evergreens there is one which is entitled to the pre-eminence among those of its class. I allude to the *Magnolia Grandiflora Gloriosa*, which originated at Angers, France, in the grounds of Mr. Lebreton. We have one plant three feet high which has produced this season three flowers, which surpassed in size the largest of the common *Grandiflora*. The number of petals is as high as fourteen and of immense size; the foliage is remarkably glossy and large, with the back of the leaves exceedingly ferruginous. Its quality of blooming at the age of two years is by itself a remarkable one and the plant must soon find its way into all flower gardens, and will be one of their brightest gems.

Among the new varieties of Roses which we imported from France during the past winter, there are some which may be called perfection, and are as much superior to most of the old leading varieties as the Shockley Apple is to the Wild Crab. Among the newest I will mention:

HYBRID PERPETUALS.

Bacchus.—Flower medium, very full, fiery crimson shaded with darker velvety spots. Superb.

Comte de Morny.—Flower large, full, in form of cups, rosy carmine.

Ereque de Nismes.—Very large, finely formed, full, red purple, showy, highly mottled with very dark crimson.

Gloire de Lyon.—Medium flower, full, dark red, purple, velvety, passing almost to black violet. Superb.

Laelia.—Very large, full, rosy carminate.

Lord Palmerston.—Medium, full, lively scarlet, fine bloomer.

Louis Chaix.—Large, full, perfect form, fiery red, shaded with crimson.

Louis d' Autriche.—Very large, full, violet, seedling of LaReine.

Madame de Besse.—Large, full, in form of cups, rosy, lilac centre, lighter on circumference..

Mademoiselle Faugel.—Medium, full, flat, fine rosy, centre darker.

Maximilien II, or King of Bavaria.—Medium, full, dark purple shaded. Superb.

Monsieur de Montigny.—Very large, full, flat, fine rosy carminate.

Souvenir de Bergeranger.—Medium, full, fine brilliant rose.

Thomas Rivers.—Medium, full, globulous, fine pink, very brilliant.

Triomphe des Beaux Arts.—Large, nearly full, velvety, crimson.

Triomphe de Montrouge.—Middle full, scarlet.

Virginie Baltet.—Medium, flowering in panicles, fine, rosy.

BOURBON ROSES.

Caroline Riguet.—Medium, full, perfect, pure white.

General Blanchard.—Medium, full, transparent, rosy, fine bloomer.

Josephine Clermont.—Medium, full, fine pink with darker centre.

Madame Comtesse.—Medium, full, fine pink, very perfect form.

Madame Eliza de Chenier.—Medium, full, flowering in corymbs, lively pink, fine bloomer and fine grower.

Monsieur Jard.—Large, full, imbricated, cherry red; superb.

MOSS PERPETUALS.

It has been long doubted by most horticulturists of the

possibility of producing *Everblooming* Moss Roses. The floral world is indebted to the efforts of M. Vibert for the introduction of this new class which will soon supersede all others, as they combine all the beauty of the old Moss Roses with that of being everblooming.

Of this class we now possess a fine variety, and will mention among the best:

Alfred de Dalmas.—Medium, full, pink cent'e, with some petals of a lighter tinge.

Madame Edouard Ory.—Large, very full, perfect form, light rosy.

Marie de Bourgogne.—Very full, light red, fine bloomer.

Ma Ponctuee.—Medium, full, cherry red, spotted with white.

These I consider as worthy of a place in the best collection, although the list of varieties is now quite extensive.

I cannot close this list without mentioning some other Roses, although having been introduced a year or two sooner, are still very little disseminated.

The following are remarkable by their showy colors and perfect forms:

HYBRID PERPETUALS.

Empereur Bonaparte.—Large, very full, dark, velvety, crimson, shaded with darker brown; magnificent.

Lord Raglan.—Much analogy with the above, but more globulous and somewhat lighter.

General Jacqueminot.—Very large, nearly full, cherry red, very showy.

Prince Leon Kostchoubay.—Very large full, fiery red; superb.

Dembrowsky.—Large, nearly full, deep violet crimson.

Paul Dupuy.—Large full, dark crimson, changing to violet.

To contrast with these the following are as much worthy of notice, although their colors are less brilliant:

Rosine Margottin, *Marie Aviat*, *Dr. Henon*, *Madame de Trotter*, *Abbe Fétel* and many others, whose aggregate number is endless, and makes it a difficult matter to decide which to discard, as almost all of them have some peculiar merit to claim their admittance among the rest.

We have a number of other new Roses, but, as yet, have not seen their flowerets enough to report on them.

Yours respectfully,

P. J. BERCKMANS.

Fruitland, Augusta, Ga., May 27, 1859.

ORCHARDS AND VINEYARDS NEAR AIKEN, South Carolina.

The Committee appointed by the "Aiken Vine Growing and Horticultural Association" to visit and examine Orchards and Vineyards in the neighborhood of Aiken, submit the following

REPORT:

Shortly after their appointment, the Committee met on three several days and visited and examined fourteen different places on which there are orchards and vineyards. From the owners of other places which they were unable, personally, to visit at the time, they procured authentic information of the number of their trees and the condition of the same.

Their examination embraces the following results, which will give some idea of the amount of Fruit Culture in the vicinity of Aiken:

130 acres of Grape: 40,000 Peach Trees; 4,500 Pears, Apples, Plums, &c. It must be understood that the number of peach and other trees only refers to those larger orchards which have been planted expressly for market, and does not include the smaller orchards which are

planted for private use, of which there are some on every farm and almost every lot in Aiken.

Peach.—Of this number (40,000 peach trees) a large portion are still quite young and have furnished, as yet, nothing for market; some 20,000 of them or more having been set out in the last two years.

We have ascertained that, during the summer of 1858, there were sent to market from Aiken and the vicinity about 7,500 bushels of peaches. We may thus form some estimate of the value of the crop when all our trees come into bearing.

With regard to condition, the Committee would report altogether favorably; but in this culture, as in all others, they observed that care and attention were duly rewarded—those which had received most thorough cultivation of the ground and proper pruning exhibiting a decided superiority. There is, perhaps, no kind of product which repays more for good culture and selection of first-rate varieties than that of the peach, on account of the enormous prices paid for early and superior fruit in the Northern markets.

The principal enemy to the Peach here is the Borer, (*Egeria excisosa*) which enters the trunk near the root, and feeds on the inner bark. Unless kept in check they destroy an orchard in a few years. Various plans have been tried to prevent their entrance into the tree, but the only effectual mode as yet known is, to search over the trees, two or three times during the year and destroy the worms.

Most of trees planted here for market are from the Northern Nurseries, though we would prefer Southern raised trees. We would strongly recommend the raising of seedlings from the early Southern varieties, with a view of obtaining a yet earlier Peach.

Pear.—This fruit has not been cultivated hitherto with us to any great extent. We find a number of persons now trying the Dwarf Pear (grafted on quince). There are, however, some successful cultivators of the Pear in the neighborhood, as our exhibitions of last summer proved, and as your Committee had an opportunity of verifying on their rides. The most encouraging experiment with Pear Culture may be seen at Mr. John D. Legare's farm. This gentleman was the first who commenced the cultivation of fruit for market on a large scale in this neighborhood. About 15 years ago he set out an orchard of Peaches, with some Nectarines, Apples and Pears—these last were Dwarf Pears, imported from France. As Pear Culture here had always been considered very uncertain, little attention was paid to them. They were neglected in the pruning and cultivation, as Mr. Legare himself informed us, and yet they are now bearing fine crops. Last summer they were so loaded with fruit that a great number of props were necessary to sustain the limbs and prevent their breaking down.

The cultivation of the Dwarf Pear is becoming very general in other quarters. The most suitable soil is said to be a clayey loam, as the quince stock on which it grows prefers such soil. It would, therefore, be unsuited to those situations where our grapes and peaches may best grow; but, in the variable soils of this region, clay grounds may be found on almost every farm, adapted to this culture. We would strongly recommend a trial of the Pear on Haw stock. The common Haw tree of this region (*Craagrus cestivalis*) flourishes well on light sandy soils and would probably be well adapted for grafting upon. We have the assurance of one of the most successful Pear cultivators in our Association that he has found the Pear, grafted on the Haw, to do well, and in further confirmation, one of your Committee will state that he grafted two pear scions on seedling Haws, one year old, in the winter of 1858, both of which grew last summer between 5 and 6 feet high. This is, perhaps, more than would

have been done on the quince, and is highly encouraging for further trial.

Apples.—But little attention has been paid hitherto to the better varieties of this fruit. As long as we depend on propagating the well-known Northern winter and fall varieties, nothing but failure may be expected. Our Southern Nurseries are now well furnished with Southern seedlings of the best quality, which are believed to be even superior to the best Northern fruit. We are giving them a trial, and hope to report favorably in a year or two more.

Apricots and Plums.—Both these fruits are too uncertain and precarious for this locality. The improved varieties of plum, originating in more Northern latitudes are unsuited to our climate and do not come to perfection. They are more liable to the attacks of the Curculio than other stone fruit. The Apricot flowers so early in the season that it rarely escapes our late frosts.

Grapes.—Your Committee took account of 130 acres in Grapes, nearly all of which they visited and examined. The Grape Culture has received an impetus in the last few years at the South from the increasing conviction that our soil and climate, in the high rolling lands above the falls of the rivers, (and more especially in the light ridges of the Sand Hill region) are highly congenial to its growth.

This conviction among us has, in a great measure, grown out of the success which has attended the efforts of two of our members, to whom we wish to award all praise. Dr. McDonald and Mr. DeCaradeuc, the largest vintners and wine makers of this immediate section, have extensive vineyards—the former 75, and the latter 20 acres, from which they have annually, for many years past, made several thousand gallons, and sold at highly remunerating prices.

Except these two vineyards, all the others are young—of one, two or three years growth. There is a determination to extend this culture on the part of those who have commenced vineyards, and there will probably be many more acres added to the above in the course of the present year.

The Committee, in conclusion, would repeat that they were highly pleased with the result of their examination, in the healthy and flourishing state of orchards and vineyards which they visited, and in the kind hospitality and good cheer they received on all sides in their rides through the country.

JAS. PURVIS,
A. M. D. ROBERTSON, } Committee.
H. W. RAVENEL,

Aiken, S. C., May, 1859.

TREE PEDDLERS FROM THE NORTH---CAUTION!!!!

EDITOR SOUTHERN CULTIVATOR—I deem it my duty to inform you, and through you, the agricultural public, of a gross fraud which a party of Fruit Tree Peddlers from the North are attempting (and I fear but too successfully) to practice upon our people. The whole country has been carefully *districted off* and then closely canvassed by these gentry, whose style of operations is something like this: They prepare strong glass jars or cans, filled with the best specimens of *Northern* fruit, preserved in alcohol, and exhibit these to the ignorant and unsuspecting, as samples of what may be produced *here*, from trees which they will furnish.

These fruits (seen through such a medium) are greatly magnified in size, and well calculated to deceive and humbug people.

Now I will lay down a few propositions which you, in common with all experienced Southern horticulturists, know to be correct; and then if our people are foolish

enough to invest their money in worthless stuff, let them suffer the consequences:

1st. None of the leading varieties of *Northern* fall or winter Apples are worth planting anywhere South of Virginia. Our seasons are so long and warm that they ripen prematurely in July or August, and fall off the tree, rotten and worthless.

2d. The only late keeping Apples of any value whatever for the South, are *Southern Seedlings*, raised here. Of these, our Southern Nurserymen have now at least 50 varieties—that cannot be obtained from the North, and the best of which are superior to any grown there. I include in this list, the *Mangum* (or Carter), the *Shockley*, *Equinety*, *Stephenson*, *Oconee Greening*, *Ralph*, *Nickajack*, *Green Crank*, *Limbertwig*, and many others—all of Southern origin, and better, in every respect, than the *Newtown Pippins*, *Spys*, *Swaars* and *Spitzenbergs* of the North. A few of the *early* Northern Apples do very well here; but, in procuring these, *always get trees grown in the South*.

3rd. Our Southern Seedling Peaches, in their season, are also better adapted to our climate and superior in other respects to the Northern and European varieties. This is the proper climate of the Peach, and our trees are far more vigorous and healthy than those of the North. Therefore, do not purchase any Peach trees from the North. If you want the Northern varieties, get those that have been grafted or budded on Southern stocks.

4th. The same caution will hold good in regard to all other varieties of fruit trees, such as Pear, Plum, Apricot, Nectarine, Quince, &c., &c. And in planting a vineyard, get Southern grown Grape cuttings and roots whenever it is possible.

5th. Do not be fooled out of your money by fancy-colored pictures of Currants, Gooseberries, &c. These fruits are not adapted to our climate—they have been tried a thousand times, and always failed. We have a better Currant than any cultivated at the North, viz: the *Amelanchier*, or "Currant Tree," [*Amelanchier Canadensis*, or *Botryapium*] sometimes called "Shad Flower" or "May Cherry." This delicious fruit can be raised on any soil and bears profusely. It may be propagated readily from suckers, and I hope our Southern Nurserymen will, hereafter, keep a larger stock of plants on hand.

6th. Southern Nurserymen are now fully prepared to supply all desirable varieties of Fruit and Ornamental Trees, Vines, Roses, &c.—grown with especial reference to our own climate; and the Southerner who sends or gives his orders to Northern Nurseries or the peddlers (while he is, perhaps, politically advocating disunion and non-intercourse!) can hardly be considered a *consistent man or a true patriot*.

7th. The cause of Southern Horticulture and Pomology has been sadly damaged by our failures with Northern fruits; so much so that many of our people are afraid to plant trees at all; not knowing the difference between those which are and which are not adapted to our climate. This retarding of the natural progress of our country in fruit culture has already cost us *thousands* if not *millions* of dollars, and still we are sending our money to the North for trash not worth half the cost of freight! Was there ever such "moon-struck" folly and inconsistency?

8th. To succeed in growing Fruit in the South, get from Southern Nurseries, trees of Southern varieties, which are known by experience to suit our climate, and let the intinerating vendors of Northern trees plant their "scions" in "free soil." What say you, Mr. Editor?

MALIC ACID.

Home Place, Ga., June, 1859.

REPLY.—We say that our correspondent is altogether right. There is neither any sense or necessity in send-

ing to a distance for that which can be *better* obtained at home, and the particular evil of which he complains is really getting to be serious. We would rather have *one* Southern raised tree than *two* Northern trees of the same age and variety; and the remarks of "MALIC ACID" respecting the superiority of our Southern Winter Apples, &c., are literally true. In a private note, our correspondent disclaims any illiberal or sectional prejudice, and we are sure he does not cherish any such feeling. He is, in all such matters, like ourselves: only actuated by a desire that the *truth* should be known, and that our people may be awakened to their own interests. We feel it to be our duty to publish his timely and vigorous caution, and could add much more on the subject, ourselves, were it necessary.—ED.

PRUNING FRUIT TREES.

EDITOR SOUTHERN CULTIVATOR—In reply to the inquiries of Mr. Keon, we will give our own method of proceeding with young fruit trees. We prefer in the first place, a young, thrifty, straight shoot or graft in preference to one that has thrown out branches in the Nursery row, for the reason that we can get a good foundation in its straight trunk for a symmetrical, well-formed tree if properly managed.

After we have planted our tree, we head it down to about 3 feet in height, and should it throw out more shoots than we wish to retain to form a top to our liking, we rub or pull them off from time to time, and only retain such as are necessary to form the top. This is our plan of proceeding with apple and standard pear trees.

As regards the heads of Peach trees becoming too thick or filled with spray from pursuing the shortening in system, we can assure all that this is the very thing in our hot Southern climate we wish and aim to accomplish; instead of letting in the sun and air, our aim and efforts should be to exclude it—shade is what our fruits want.

As the Peach only bears one crop on its wood and the growth of this year forms the fruit bearing wood for next year, and so on from year to year, it will at once be perceived that by the shortening-in method we force the tree to throw out shoots in the interior instead of at the ends of the limbs alone, as is the case when left to its own way.

We have never seen an instance where a Peach tree needed its branches thinned out, but when Apple and Pear trees have been transplanted from three to four years the smaller spray in the interior should be cut away, but never any large limbs, unless through previous neglect some should have grown so as to prove injurious or unsightly.

J. VAN BUREN.

Clarksville, Georgia, 1859.

OLD WINES.—At a recent auction sale of the wines of a deceased Lord Justice in Scotland, eleven hundred dozen bottles of the choicest brands were disposed of at high rates. The best Port of the vintage of 1821 sold for about \$50 a dozen, the best Sherry sold for \$62 a dozen. The highest price given was for Johannisburg of 1834 and 1842, noted as "Prince Metternich's," which lot brought \$84 a dozen.

Most of the old Madeira wine for sale in this country formerly belonged to families in Boston. The "Judge Story" brands are \$4 a bottle, Isaac D. Davis's "Eclipse" is \$8 a bottle, "Gov. Phillips, 1820" and "Edward Tuckerman, 1820, are \$10 a bottle, "Frances Amory" Madeira bottled in 1800 is sold at \$12 a bottle!

[And a bottle of Axt's Georgia Wine of 1856, (costing \$1,) is probably better and purer than any of these.—ED.]

GRAPE CULTURE---WIRE TRELLISES, &c.

An exchange paper says:—"The wire trellis is a kind of support that is growing in favor with vine dressers. A limited number of posts should be planted along the rows in the spring of the second year; to these a single wire is attached by means of staples, or by sawing a notch into the edge of the post; or it may be passed through holes bored through the post and secured at each end, where the post is also braced firmly. This first wire may be placed about a foot or eighteen inches from the ground; the others may be put up at spaces of about a foot, or they may be omitted until the succeeding year. Some appliances have been invented for stretching the wires; but the simple arrangement of Mr. Charles Carpenter, (a very successful vine dresser of Kelley's Island, in Lake Erie,) is perhaps the best. He advises commencing two feet outside of the first vine in the row, and setting posts of any good, durable timber fifty feet apart. Those at the ends of the row should be set deeply and firmly. At twenty, forty and sixty inches from the ground, bore half inch holes, and pass through them good annealed wire, about No. 8 or 9. When you have gone through a row, or as far as the wire will reach, make it fast at an end post by driving into the hole from the outside a pin of hard wood, and leaving out several inches of wire to wind around the pin close to the post. It will never pull through, but it should be drawn tight at the opposite end, and secured in the same way. If at any time intermediate supports are wanted, a stake three inches thick should be used, having small notches cut obliquely downward with a hand saw to receive the wire, which may be fastened with a single nail. This can be built for less than a wooden trellis, and is more durable and convenient; and it may be stated that thorough annealing is a better preventive of rust than paint or ordinary galvanized wire."

At the winter pruning, the shoots may be passed to the right and left of the stalk, at an angle of 30° or 40°, to wires of suitable height for their length; and the vine may be obliquely bent round the wire, and tied at the ends. It then never gets down, even though the ties should break; for the fruit hangs on both sides of the wire. The new shoots should then be trained perpendicularly, and the whole plants thus freely exposed to the sun and air."

ZANTE CURRANTS.—The Patent office is in receipt of a lengthy and interesting communication from Samuel B. Parsons, an experienced nurseryman, of Flushing New York, who is now traveling in Europe, concerning the Zante Currants. During his tour, he visited the Ionian Islands, and acquainted himself with the mode of cultivation, climatic necessities, and the method of drying and packing this fruit; as well as the diseases incidental to the plants, and profits arising from its cultivation; of all which he informs the Patent Office in detail. He also urges the importance of attempting the introduction of the fruit into this country. The agricultural department of the Patent Office did, however, introduce a great quantity of the vines last year, which were widely distributed in the Southern States and in California, and from which the happiest results are anticipated.—*Star.*

[We have several vines of these Currants, or rather Grapes, growing thrifly at "Vineland," and hope to gather fruit from them next year.—ED. So. CULT.]

**RENOVATION OF OLD TREES---THE PEAR
on Quince Stock, &c.**

EDITOR SOUTHERN CULTIVATOR—A subscriber to the *Southern Cultivator* proposed, in a former number of your paper (1858), the question: “How can old Pear Trees be restored to health &c.?”. As I have not seen that question answered, will you allow me to give you my views on the subject? I waited till some more able and practical man should have replied to the query, but not finding it answered at all, I venture a few remarks, the result of over thirty years experience, which, I trust, will open the debate for more and better information.

I have seen in my days many an old tree mutilated and grafted with better sorts of fruit, and the uniform result of my observations is, that in no case have I seen it succeed well. It is true, Pears or Apples have grown for 2 or 4 years upon new grafts, but there was no lasting result in any case that I have witnessed. The reason of such partial or entire failure lies in the root of Nature's laws.

If it be true to assert that “old trees do not like to be transplanted,” it is also true that they do not like to be mutilated. Any one who has studied the *co-relation* between the roots and the upper structure of a tree is aware of the necessity of maintaining a just equilibrium between the feeders and the wasters (supposing, or considering leaves, fruits and blossoms to be waste, as, *in part* they are). A comparatively old or rather mature tree can better stand the process of a judicious mutilation of roots and limbs to be transplanted in another and better condition than that same tree will stand the removal of almost all of its limbs and no corresponding suppression of roots taking place.

Before the wounds made by the cutting off of a large limb (say from 4 to 6 inches in diameter) can be healed, decay sets in, especially in such climates as this, where life is more active and destruction, also, in the same ratio. That wound cannot be healed afterwards, and makes a permanent sore by which the limb suffers, after the first or second year of the operation, and afterwards perishes.

The structure of a tree is, like all the products of Nature, a most harmonious, *ensemble* of all the constituents required to make a unit, a creation by itself. Liver, bark, lignum, sap vessels, limbs, leaves and roots are all in due proportion to make that creation perfect according to its natural laws and destination. If lightning or storms, or any other cause disturb these laws by breaking or tearing part of the upper structure; or of grubs or moisture or natural obstacles and destructive agents disturb part of the roots, every one can witness the general check in the growth, and almost the principle of decay setting in.

So with a tree submitted to artificial mutilation. The due proportion between roots, limbs, sap and leaves is broken and altered, the sap not finding its former channels throws out sickly shoots in places where they should not be, or it is checked, thrown back upon the roots where it causes repletion, and abnormal extension; or we find it checked, strangled in some vessels and causing partial death or atrophy by want of proper outlets in proportion to its abundance supplied by the roots, and sent on the old errand, for it is a strange fact that trees seem to be things of habit and are almost always taken by surprise by our interference. A remarkable instance of this disposition is to be found in the trees imported from the North.

The first spring (when they are planted during the winter or fall) they send out blossoms and leaves at the first gentle breeze and sunshine which so often makes our Southern winters so delightful in January or February—the result is that they are sometimes nipped by the frost in March or April while the old customers keep their dormant buds composedly, and I suppose must laugh at the

green ones, which are displaying their inexperience to the soft breezes and the unwonted blue and warm sky. The next season or spring following, their education will be complete—Trees raised in the South are never found guilty of such foolish tricks and behave as aborigines according to the laws of their land. Excuse, Mr. Editor, this digression and let us return to our subject.

Any horticulturist familiar with the laws governing plants and trees, will see the impossibility of a restoration of old decaying trees by any process of grafting or severe pruning.

If a tree, old as it is, retains still a healthy frame, sound vessels, good roots and limbs, such a tree can be restored to a better health by digging at a distance around, or draining; or irrigation (whatever the particular case and locality might require) and in all cases by the application of new good soil, mould, lime, phosphate or any other constituent.

If the tree should be grafted at all being in a favorite locality or an old friend not easily to be parted with I should select the soundest among the middle sized limbs put on these grafts of a hardy, robust variety shorten and mutilate the balance of the remaining limbs in due proportion, and when the grafts have fairly taken watch and nip and reduce the shoots of the old limbs so as to bring more sap to the grafts without suddenly disturbing the whole *economy* of the tree. Two years afterwards, having promoted the growth of new shoots upon the old limbs, I should graft upon those and carefully suppress the remainder of the old limbs; by that time the first grafts will have acquired strength enough to carry away and use up the abundant sap and the new grafts will safely start on new wood. It would be a good policy to dig around the tree and disturb some of the roots to prevent the exuberant sap to run to the old channels—by the addition of fertilizers as above hinted new roots will be formed in due course of the growth of the new wood, and in due proportion also with the development of the grafts.

But my conclusion shall ever be that it is better to remove an *old* tree altogether; renew or change the soil, plant another species of fruit or forest tree in the place where you take up the old one; unless you restore the soil and fit it for the same kind of tree by a good supply new or field soil. An old tree requires much attention; it is a sorrowful sight, a forlorn hope; while a young, thrifty tree is full of life and promise, and will be in full bearing by the time you shall be compelled to cut down the thing to which nature “has numbered the days of its life.”

I have heard some complaint and inquiries also about the worm destroying the quince budded pear trees. That never happens when the pear bud or graft starts fairly upon the quince and when the stock is covered—but when the variety does not suit the quince stock, sickness is the result and, in Southern climates, where life is so active, destruction keeps pace with it, and worms set in. This is a natural law all over the world. The more nature promotes the growth of a plant by an appropriated soil, genial climate, absence of drawbacks (as frosts, &c.) the more she is in haste to do away with all sickly things. As in social life where the battle is only won by the strong in body or mind, so in nature's broad fields and forests there is only room for the *robust* and vigorous products.

Under such conditions we must, of course, pay more attention than we have to do in the middle States, and certainly more than in Great Britain and under moderate temperatures to the *congeniality* between the stocks and the grafts; to the hardiness of certain varieties, or in other words, to their adaptation to this more *marked* climate.

I never found a sound, well taken budded pear tree upon the quince stock injured by any worms. A few failed and they were sickly when planted. It was natural that the worms should prey upon wood not intended by nature to live. But all other quince budded trees have now, after one year's planting and growing, such *clumps* of roots as I never saw before in three years growth in the North. I must suppose that the result will be lasting, for I can see no check in the growth, on the contrary, they are more firmly established than any of my standards, and if there is any difference, therefore, in the *growth* it is all to the advantage of the former, or dwarf trees.

L. E. BERCKMANS.

Pearmont, near Augusta, Ga., May, 1859.

**"MADE WINE"---THE STUFF WE OFTEN
DRINK!"**

MANY of us, in this country, seem to think it a difficult process to make good wine even from the ripe and blushing Grapes of our sunny Southern hillsides; but here we have an account of a community of people in France, who make "all sorts" of Wine without the aid of any grapes at all. Is it not time that we should discontinue the use of these abominable and poisonous mixtures? And shall we not, at once, set about making an abundance of our own, *pure, native Wines*, thereby saving our health, and the annual expenditure of millions of dollars to enrich foreign imposters?

"At the northwestern corner of the Mediterranean, where the blue waves of the Gulf of Lyons beat upon the sunny shore of Languedoc, stands the smiling and prosperous little town of Cette. Its harbor is convenient, and usually crowded with shipping, displaying the flags of many nations. A stranger is often, at first sight puzzled, to determine what may be the particular branch of trade to which the inhabitants are indebted for their wealth. The warehouses are numerous, the stores are commodious; there are no beggars, and there is no appearance in any part of indigence or idleness. Among the craftsmen, perhaps, a preponderance of coopers is observable; vast indeed is the consumption of staves and hoops. Logwood here is also used largely, cider extensively, sugar not a little; Chropiga and Benicarlo are imported in great quantities, but never leave Cette under the original names. To be brief, within the limits of this little Mediterranean seaport, and from the crude materials above enumerated are produced in enormous quantities imitations of every known vintage: Claret, Hockheimer, Johannisberg, Burgundy, Champagne, Moselle, (sparkling or still,) Madeira, Lachrymae, Christi, Constantia, humble Port, or Imperial Tokay. It matters not how rare nor how choice the original semp'e may be, so accurate is the palate, so nice the skill of this little colony of thrifty wine merchants, that they can, with more than Chinese precision, imitate the flavor and copy the color of the required fluid: nay, even the very form of the bottle in which the genuine wine is ordinarily met with; so that an experienced judge is not unfrequently imposed upon. A bad vintage, or even a succession of bad seasons is regarded there as rather a blessing than a misfortune. The price of wine naturally rises, but the cost of ingredients used by the manufacturer of Cette remaining pretty nearly the same, he is enabled to supply his customers with increased advantage to himself. Little, therefore, does he pray for an abundance of grapes or a genial September sun. Let but the cider crop be copious, and the Bay of Campeche yield liberally its useful stores, and he will take care that the cellars of England shall not want replenishment with the finest Port!"

"It is said that, some time since, this industrious city

was reduced to the greatest straits by the wreck of a long expected vessel with heavy consignment of bois de Bresil. But for a happy thought, there would probably have been a fearful advantage in the price of Port here. Luckily, however, the beet, that summer, had been unusually prolific, and madder was obtainable at easy rates. The loss of the ill-fated ship soon ceased to be bewailed, the honor of Cette was saved, and her profits even exceeded the average of former years."

GARDEN FLOWERS.

At the meeting of the Farmers' Club of the American Institute, in response to a request, Mr. Pardee handed in the following as a select list of 25 species of flowers, which he had prepared for a lady at her request. It was not intimated that the list was complete, but it was said this list, or even a part of it, well cultivated, will be far preferable to a larger number cultivated in the ordinary way, to wit:

Best Verbenas.
Best Petunias.
Best Pansies.
Best French Asters.
Peona flora and Chrysanthema flora Aster.
Phlox Drummondi alba, Criterion and Victoria.
Portulaccas, best varieties.
Best Double Balsams.
China Pink, new marbled.
Cypress vine.
Canary bird flower.
Climbing Cobea.
Amaranths, tri-colored, &c.
Best double Sweet Williams.
Best perennial Lupins.
Best Digitalis, or Fox Gloves.
Best Delphinium or Larkspur.
Best double Hollyhocks.
Phlox perennial, Roi Leopold.
Dielytra Spectabilis.
Dwarf Chrysanthemums.
Peonies.
Yucca Filamentosa—[Bear Grass!]
Roses.

With the exception of the last named six species and perhaps the Climbing Cobea, it was recommended to raise the plants from seeds, sparing no pains to get the best kinds of seeds, and, if possible, save them yourselves. If a lady can only be induced to learn enough about the superior cultivation of flowers to excel in one variety, she will be likely to acquire a taste that will enable her to excel in many other kinds, and then she will ever after be sure to have an abundance of fine flowers, with little care or trouble.—Mass. Ploughman.

STRAWBERRIES.—Last year's report of the New York Strawberry Convention, states that some of the Long Island gardens yield from 150 to 200 bushels per acre. Those who know it, say that it is an easy matter to get fifty quarts of the best kinds from a bed 20 feet square. A correspondent of the Manchester American writes that he has for several years raised thirty boxes of the strawberry (30 quarts) on a single square rod, and a lady in Merrimac last year raised forty-three boxes. But he that would succeed in the cultivation of this best of garden luxuries, should inform himself as to the proper modes of culture. The fruit has small rewards for the ignorant and careless.—Maine Farmer.

BLAZE-PROOF.—The delicate gauzy material used for dresses by females on the stage, is rendered proof against blaze. It may be consumed without blazing. The fabric is prepared by soaking it in a weak solution of chloride of zinc.

C. M. HOVEY, one of the most intelligent and successful Pear growers in America, thus gives in his experience on Dwarf Pears:

THE CULTURE OF DWARF PEARS.

The culture of Dwarf Pears, or Pears upon the Quince, has rapidly increased during the last ten years, so that, at the present moment, there are but few cultivators who attempt to raise this delicious fruit who have not more or less Dwarf Pears in their gardens. Indeed, we think we may safely state that the number of Dwarf Pears planted in the above-named period is at least quadruple, if not ten times as large, as the number set out upon the pear stock. This has resulted from various causes, but principally from the following reasons:

1st. Dwarf Pears are more easily raised than standards, and therefore can be purchased cheaper from the nurseries.

2nd. They transplant with much greater facility, and with the utmost certainty of living.

3rd. They come into bearing immediately, and continue to produce annual crops.

4th. They may be cultivated in small gardens, either as dwarfs, pyramids or bushes, occupying but little space, where standards would be highly objectionable on account of their size and shade.

5th. The facility of thinning and gathering the fruit, and the less danger of its being blown from the tree by our high autumnal winds.

6th. The ease with which the trees may be pruned and managed, without the aid of long ladders.

7th. Their very great productiveness.

8th. Their ornamental character when planted on the borders of avenues, or in squares by themselves.

These would seem to be abundant reasons why dwarf Pears should be extensively planted by all who love this delicious fruit, and expect to eat it within a reasonable length of time.

We have already remarked that nearly if not quite all that has been written against dwarf pear culture, in this country, is mere speculation—mere talk—an attempt of the writers to figure as experienced cultivators, while they have never understood, or, if they did understand, never attempted their growth in a skillful and proper manner. They admit this. Having been unsuccessful themselves, they would deny success everywhere, were it not that they are compelled by the facts themselves, which cannot be gainsay'd, to admit that dwarf pears really "do flourish in certain localities," as if the pear, capricious as all know it to be, was so harlequin in its character as not to succeed under proper treatment throughout the greater portion of the temperate zone, or wherever any of the hardy fruits yield a crop. This is certainly a great argument for writers who have attempted to enlighten the public on Pear Culture to adopt. It might do for some, but not for those who have been so forward to give their opinions. If Mr. Allen were to tell us anything about stock, we should all know what value to place upon the information; but when he undertakes to talk to us about pear culture, especially dwarf pears, he is out of his element, and his advice has no more practical value than that of other inexperienced but well-meaning cultivators, who have accidentally discovered—what hundreds of practical men have devoted their whole lives to learn—the complete process of cultivation.

We had supposed intelligent pomologists, conversant with the cultivation of the pear for more than two hundred years through the writings of eminent practical men in France, where the quince has so long been used as a stock for the pear, gave little heed to all that has been written against dwarf trees, knowing that mere assertion is one thing, and facts, as adduced from history and con-

firmed after long years of practical experience, another. So much have we believed this, that we have not thought it necessary to assert, again and again, what we have already stated. To the practical man there is no need of this, but with the young and inexperienced, who form the greater part of the cultivators of this country, this is not the case. They do not see through the sophistry of the arguments of the opponents of dwarf pear culture, and not knowing how well able these writers are to maintain their opinions by actual experience, they obtain ideas which would be of inconceivable injury, and perhaps prevent the realization of much of the enjoyment which pear culture affords to those who begin aright, and are willing to learn from those who have the knowledge to teach. But for this we should be willing to let all that has been said against dwarf pear culture pass as unworthy the attention of practical men.

But the phases of the question under discussion are so varied from time to time that it is difficult to meet them. We are willing to acknowledge that the great champion of the opposition invited our cultivators to consider the simple question, "Can Pears be profitably grown for market?" Simple enough, truly, and one should like to see answered; but what was the argument? Why, this, that a distinguished cultivator in Western New York planted out, ten years ago, five hundred dwarf pear trees, and they "had entirely failed," and "twenty or thirty neighbors," as well as "scores of pear growers" in that section, had no better success. This was the argument to show that pears could not be profitably grown for market.

And now we would ask, has the time yet come when we can ask and expect to receive a satisfactory answer to the question, "Can pears be profitably grown for the market?" We think not. Our readers all know that we entirely disagree with many writers who have maintained that they could be cultivated "with the expectation of a large income." We have only to refer to our article in our last volume (XXIV, p 441) in proof of this. The profit of pear culture is one thing—the successful cultivation of dwarf pears another. Let us keep them distinct. Both pine apples and grapes are grown in greater perfection under artificial culture than they can be found anywhere without it. This fact no one doubts. The profits of the attempts to accomplish it is another question. So of pears. There are plenty of excellent varieties which may be grown to as great a profit as any other fruit; but when these writers talk about contracts to furnish half a dozen barrels of Easter Beurres, they only expose their ignorance the more fully, for such pears don't grow, either on pear or quince, without cultivation, and that of the highest kind.

Let us look a moment to the condition of pear culture in France and England, standards being the rule in the latter country and the exception in the former. According to accurate tables, ascertained by authority by M. Husson, and published in the *Revue Horticole* in 1856, the consumption of pears in Paris, in 1853, was one hundred and ninety-pounds (190 lbs.) per head; while in London, as ascertained upon the authority of Bathwaite Poole, the consumption was only eight pounds (8 lbs.) per head, showing that every man, woman and child in Paris consumed nearly twenty-five times as many pears as those in London. Now we know that the climate of France is more favorable to the pear than that of England; yet, according to good authority, there are many varieties which flourish perfectly in England and produce abundantly. This, therefore, cannot make so great a difference. We must look elsewhere for the cause. It may be said the Londoners do not love pears so well as the Parisians. Perhaps it is so. But we think if the supply was offered to the former they would soon become con-

sumers. We can only think increased consumption in Paris is supplied from the millions of dwarf pears which are planted in the neighborhood for the supply of the markets, coming into bearing at once, and affording a supply which could not be obtained in twenty years upon the pear stock. In fact, it is well known that all the fine Beurre gris, Easter Beurre and such fine old pears, which may be seen in the Parisian markets, are gathered from trees on walls, trellises or pyramids, worked on the quince.

And how has it been thus far in our own country, where we are but just beginning to know many of the fine pears—where, 25 years ago, not twenty varieties were known out of a few extensive collections, and during which time nearly one hundred native varieties have been brought to notice. We know something about the supply of pears in the Boston market, which is very large. Yet we venture to say, that of the great quantity of Louise Bonne, Duchess, Easter Beurre, Beurre Diel, Urbaniste, and many others, which are annually offered for sale, not one tenth of them are gathered from standard trees; and more, if we had to get them from this source, it would be difficult to find a dozen pears were they are offered now by the barrel. In fact, we know standard trees that were planted out immediately after the introduction of some of these varieties into the country, which have not yet borne enough fruit to pay for the trees. Shall we, therefore, deny ourselves the luxury of these fine fruits, because some inexperienced and careless cultivator tells us he has entirely failed, and "scores" of individuals have failed also to make the dwarf pear succeed? No; it were better to offer a little wholesome advice in return, and try first to learn yourself before you attempt to teach others.

We have little to add to what we have already stated in previous articles in our several volumes. Our own experience and the experience of our neighbors is ample proof of the advantages of dwarf pear culture. Let those who denounce dwarf pears look at the thousands of trees in the collections around Boston, planted from twenty to thirty years, and then ask, "Can pears be grown profitably for market?" Let them visit our exhibition and see where the finest pears are obtained. If they still prefer to have standards exclusively, let them do so; but in this preference let them not condemn what they know nothing about. By planting dwarf trees we are enabled to possess all the really fine varieties in a very small garden. We know the excellence of the latest addition in a very brief period, and prove its claim to our further attention. We make what would be a task a pleasure, for the pruning pinching of the branches and the thinning and gathering of the crop are in reality a source of great delight to all who appreciate a beautiful tree and relish delicious fruit.—*Magazine of Horticulture.*

NANTEHALEE APPLE, &c.

EDITOR SOUTHERN CULTIVATOR.—As we had the honor of naming the Apple with the above name, it may not be amiss in us to give our reasons for the selection. In the first place, the specimen of fruit kindly sent us by Dr. Baldwin of Montgomery, was very beautiful, being of a translucent waxy yellow color with a very faint blush on one cheek, hence we deemed the name an appropriate one, Nantehalee, being, when rendered in our vernacular, Maiden's Bosom.

2d. As a large portion of our seedling fruits have been derived from the various tribes of Indians who in times past inhabited the country we now occupy, we have thought it but right to attach either the names of places where they originated, the names of the originators when known, or such words or terms used by them as appeared appropriate, not only ourselves, but used the same upon

others who have been engaged in bringing to light our Southern fruits, and amongst all, none have made larger or more valuable accessions than our worthy friend S. McDowell, of North Carolina.

It may not be amiss in us, as we are on the subject of Indian names, to give the history of another of our renowned Apples as related to us by Mr. McDowell. *Junaluskee*; "The original tree of this variety was owned by a Cherokee Chief of the above name, residing in Macon or Cherokee County, N. C., we do not now recollect which; when the State purchased the right of the Indians to this portion of the territory, Junaluskee refused to part with his lot on which grew this favorite tree; and to induce him to part with it the Commissioners or those having the matter in charge, agreed to allow him fifty dollars for his Apple tree."

Nantehalee, is also the name of a beautiful valley and tributary stream of the Tennessee river which rises in Macon County, N. C. A more wild, romantic and picturesque spot cannot be found within the United States; that is, if mountains, rocks, gorgeous flowers, and brawling and sparkling waterfalls, thrown together in the most amiable confusion can form one.

J. VAN BUREN.

Clarksville, Georgia, 1859.

CRAB APPLES AND THEIR USES.

EDITOR SOUTHERN CULTIVATOR—Will you or some of your intelligent correspondents be so kind as to furnish me with a recipe, or some instructions by which I can make the greatest profit from, or use of, the common "Crab Apple?" I live in a section of country where it flourishes abundantly. They are a natural, or, rather, a spontaneous product of the soil of some parts of this Parish. It bears profusely, ripens well and, in some cases, is not very bad to eat. We make them into preserves, &c., but it requires a great quantity of sugar.

What I wish most to be instructed about is the possibility of working them into cider, wine, vinegar, or something useful and palatable.

By obliging me in this instance, you will more than recompense me for my subscription to your useful and instructive work, the *Cultivator*, which we all read with more pleasure than you are aware of. I would not be without it for thrice its cost.

T. W. W.

St. Landry, Western Dis. Washington, La., April, '59.

REPLY.—Aside from the preserves to which our correspondent alludes, we do not think that the wild Crab Apple (*Malus Coronaria*) can be applied to any other economical use than the making of cider or vinegar; and the small quantity of sugar which the juice naturally contains, detracts from its value even for these purposes. If made into cider, the use of Krauser's Cider Mill for grinding and pressing the fruit, will greatly facilitate operations. But we suggest the planting of our improved varieties of the Apple in a country which seems so well adapted to the growth of this fine fruit, as the section of our correspondent. See remarks on Southern Winter Apples, in May number, page 177.—ED.

HYDROPHOBIA.—A writer in the *Providence Journal* furnishes the following prescription for Hydrophobia. Eat the green shoots of asparagus raw; sleep and perspiration will be induced, and the disease can thus be cured in any stage of canine madness. A man in Athens, Greece, was cured by this remedy after the paroxysms had commenced.

 One of our Southern exchanges has the following sensible article :

SOUTHERN WATERING PLACES.

It has always been a matter of astonishment and mortification to us that the citizens of the South should resort in such large numbers every summer to Saratoga and other northern springs, when they have watering places here, within a few days travel from their residences, every way preferable to those at the North. Most of the Virginia springs, it is now generally admitted, we believe, are superior in health restoring properties to those of New York, and as places of resort for purposes of amusement and gaiety, they possess quite equal advantages, and in point of accommodation and good living decidedly better. It is only in the gaudy and expensive show of what is termed fashion, and too often in the folly of dissipation, that the Northern springs outvie those of the South, and long may they continue without a rival among us in these respects. They ape, at the North, the aristocratic manners and style and dress of the fashionable European watering places, where the visitors, instead of regaining health and strength, are too often led into habits of dissipation and indulgence of every kind, which inevitably, sooner or later, break down the constitution; or they become recklessly extravagant and thus ruin their fortunes. It should be at once our aim and our pride to retain in our style of living the republican simplicity of our ancestors, and this simplicity, banished from the great cities and places of public resort at the North, finds a congenial habitation in the South and South-west.

But why go so far north as the Virginia Springs for the purposes of health and recreation, when we have watering places here, in Mississippi and Alabama, which possess quite as many advantages as can be found anywhere, and to the Southern invalid perhaps even more. Among the watering places down south of us, we may mention that of Point Clear on Mobile Bay, which is a most delightful and health-giving place of resort during the summer months, and, indeed, during the whole year. The breezes from the bay are always delicious—cooling and invigorating. The fare and the accomodations of every kind are of the first order, and scarcely any place can be found, where there are more means of innocent recreation and amusement. Point Clear has already become a popular place of resort, not only to the citizens of Mobile, but of many of the adjoining and even of the distant counties of Alabama and Mississippi. The place is noted for its pleasantness. Nothing like the cholera, or the yellow fever or the small pox has ever appeared there; such diseases cannot prevail at a *point* where the atmosphere is so pure and the sea breezes are so refreshing.

We may also mention Cooper's Well and Lauderdale Springs in this State and Bailey's Springs in Alabama. All of which have acquired a high reputation for the health-restoring qualities of their waters and the fine accommodations prepared for visitors by the proprietors.

TO CLEAN MOSS FROM FRUIT TREES.—The inquiry is often made. "How may I rid my fruit trees of the mess with which it are infested?" The following will be found an effectual method: Save all the soap-suds after washing, and when cold, apply to your tress with a half-worn white-wash brush. The moss will soon become soaked, and after a little perseverance with the brush, will cleave off, and leave the bark of the tree clean and glossy.

 If a man, as the Scriptures say, "cannot live by bread alone," is it not wise in him to take a help-meal.

THE POTATO, (*SOLANUM TUBEROSUM*)

The extent and value of this crop will justify us, at this season, in speaking somewhat at length of its propagation, varying value as food, cultivation, soil, manure, preservation, for late use, &c.

The potato is propagated from the seed, and in no other way. It is true, the existence of a potato plant may be prolonged indefinitely by the tuber; still the progeny of one seed is but one plant. As certain mosses, which produce heat, are constantly dying at the bottom but growing at the top, and thus continuing on one plant; or, as some tuberous roots running under the ground, but parallel with its surface, prolong their existence by growing at one extremity, while they are dying at the other; most of this year's growth perishes in autumn, but the tuber, which is a part of the plant, (of the stem not of the root,) lives and grows on next year, and so each year, the tuber forms the connecting link between the part of the plant that is dead and that which is yet to live; so that when you put a tuber into the ground you get no new plant, but only continue the growth of an old one, which may be done thirty, fifty, possibly a hundred years, and perhaps even more.

To preserve potatoes for use, with a view to their holding their autumnal qualities as a long as possible, do not expose them to the sun when dug; put them in a cool place as soon after being taken from the ground as may be; and if some moist earth adheres to them all the better. The nearer they are to the same condition as in the ground the better will they keep. The tendency of the potato is to turn its starch into a kind of gum, and then to change this gum into sugar. It is a singular fact that starch, gum and sugar are composed of the same elements and in the same proportion. A slight change in the arrangement of the elements turns starch into dextrine and then into sugar.—*Farmers' Magazine*.

PREMIUM FOR A STEAM PLOW.—There being already at the discretion of the American Agricultural Society of Illinois a premium of \$3000 for the best practical and acceptable steam plow, the Executive Committee of the Illinois Central Railroad have added \$1500 more, as follows:

Resolved, That the Illinois Central Railroad Company offer \$1500 as a premium for the best steam engine for plowing and other farm work; the simplicity and economy of its construction, and its practicability of application to farm uses shall be such that it can successfully compete with horse power for farm purposes; the award to be made by the Executive Committee of the State Agricultural Society, in connection with three scientific machinists to be selected by that body. Before any party shall claim the payment of said award, he shall exhibit the practical working of said engine at three points on the line of the Illinois Central Railroad, to be designated by the Vice-President of the Company; the said Company agreeing to transport said engine to or from such points free of expense to said party.

BORAX FOR WASHING.—Powdered borax, at the rate of a large handful to ten gallons of water, is used in Belgium by nearly all the washerwomen, and by large laundries, who prefer it to soda, as less injurious to the fabrics. In fact, it is said that borax, being a neutral salt, does not injure the texture of linen in the slightest degree; yet it has the effect of softening the hardest water, so that not more than half the soap is required. In washing laces and fine linens, such as are proverbially very white in Holland and Belgium, the women are said to use borax in much larger quantity than above indicated.

A MODE TO MEASURE CORN---PERFECTLY
Correct and Applicable to all Circumstances
---Simple---Easily done and not
hard to Remember.

Get a box of any convenient size and guage it accurately, so as to get the number of cubic feet it contains—fill it with Corn—shucked or unshucked, and shell and measure it correctly. Measure crib also in the same way—then apply the Rule of Three and you have contents of your crib, if you have made your measurements and calculations correctly.

To illustrate: Suppose your box is 3 by 4 ft. and 2 ft. 1 inch deep—25 cubic feet. We will suppose that it holds 5 bushels of shelled Corn—no matter whether shucked or unshucked. Of course, the Corn measured, comes from the bulk you wish to guage. Your crib or bulk of Corn, we will suppose to be 16 by 20 ft. and 10 feet deep—2,000 ft.

Now, here is the statement:

| FEET. | BUSHELS. | FEET. |
|-----------|---------------|-------|
| 25: | 5:: | 2000 |
| | | 5 |
| 25) 10000 | (400 bushels. | |
| | 100 | |
| | | 00 |

This is reliable—will do to buy by, or sell by—any kind of Corn. If in the shuck or any portion is *unsound*, as is usually the case—assort the Corn in the box when you shuck it and measure the sound and unsound separately—the quantity of each gives you the basis for ascertaining the exact quantity of *each* in the bulk to be measured, if the boxful which you have measured, is a fair specimen of the whole. I prefer the above rule to anything I have seen on the subject, because of its *accuracy* and *universal applicability*.

H.....

Sparta, Ga., 1859.

DEADENING SWEET GUMS, &c.

EDITOR SOUTHERN CULTIVATOR—In the June number of the *Cultivator*, “C. L.”, a new beginner, inquires for the best mode of deadening Sweet Gum timber. I answer, belt them during the month of August, by simply taking out a chip all around; they will put out the next spring in a weak state, gradually decline that summer and die. That is my experience and observation, and is the best plan, all things considered, known in our parts.

If we are so situated as to thus belt them the August before planting the land, we would not have a green gum on our land; and, in addition, the roots would give way measurably the first year we cultivate.

I will also inform everybody interested how they may effectually kill Willow Trees, root, top and branch. Any time that the bark will peel, spring or summer, chop the bark through, 4 or 5 feet above the ground; strip it loose, in strips, down to the ground, (not pulling it off); let it lie there; and, my word for it, it will never bud again, nor ever put up a single sprout from the stump or roots. If you wish, you can cut them down the ensuing winter, for the work of killing is accomplished.

THOS. F. McGEEHEE.

Meriwether Co., Ga., June, 1859.

HOW TO BE RESPECTABLE.—In an article upon Free Blacks and their duty to make money, if they would be considered respectable, the *Christian Examiner* says:

“No race in this country will be despised which makes money. If we had in Boston or New York ten ourang outangs with a million of dollars each, they would visit in the best society; we should leave our cards at their doors, and give them snug little dinner parties.”

PASTURAGE---CORN CROPS, &c.

EDITOR SOUTHERN CULTIVATOR—Next to the able and judicious manner in which your journal is conducted, the most admirable feature in the *Cultivator* is the correspondence from *practical farmers*. Farmers generally reflect too little upon the various ways and means of farm economy; but I am encouraged to hope, from indications, that a better day is coming. I believe that farmers are beginning to appreciate the dignity and importance of their position, and it will be a glad day for our country when they do take heed of their course, and endeavor to redeem their past history; for I think that the history of farming in the South is the most disgraceful that any people had ever to reproach themselves with; for they have in a short period of time exhausted and, to a great extent, ruined the whole country east of the Mississippi. They have allowed Bermuda and Coco Grass to ruin a great many plantations in the Mississippi Valley—they have cleaned out none of their rivers, and have built very few railroads, and paid for still fewer (by the bye, the city and town people must have most of the credit for what Railroads are built), they have paid little or no attention to sheep raising or the improvement of stock, in fact, most of them not raising meat enough for home consumption, but depending upon a distant country—little or no attention has been given to fruit culture or horticulture, or the embellishing of their residences. They have paid no attention to preserving or improving their lands, but have directed all their energies to opening and destroying fresh land “to make more cotton to buy more negroes.” All the clear money that has been made by farmers in the South has been laid out in introducing additional negroes, while the course has been to lessen the value of their labor by destroying the productiveness of the soil.

In this connection, I am happy to see that you and your correspondents are devoting so much attention to Grass Culture. It is a mystery to me why the pasturing of land has been so long overlooked by our people. I do hope that the grass-pasturing of land will be quickly and generally adopted; both for the preservation of our poor ill-used land from the plow; and its renovation, and for the feeding of stock, as there are but few localities where is good “range.” We have been accustomed to depend on crops of Indian Corn, which is the meanest, most troublesome and uncertain crop we raise, besides yielding the poorest return for the amount of labor. For you know that it requires deep, rich soil, almost constant work—plowing, hoeing, suckering, &c. And then it must have rain too, or our labor is, in a great degree, lost; and if we could sustain our stock on pasture of grasses (as we undoubtedly could do) we would not have to plant more than one-half of an acre in cornto each person on a place, and then we could work that small quantity like a garden, and manure it until it was a perfect Lobos. And there is hardly any soil but would produce some one, or more, of the grasses well enough to raise stock, on and that, too, in any sort of a season. I remember, a few years ago, (1855 I believe) there were serious fears of a famine in South Alabama in consequence of the drouth. Corn got up to \$1.50 and to \$2.00 per bushel in the canebrake, the greatest corn country in the South. I know planters who had a large surplus to refuse to sell at \$1.50 per bushel, but after rain did come, several advertised over 1000 bushels of old corn for sale.

This, too, in fifteen miles of Isaac Croom, from whom these people should have learned the wiser policy of a variety crops.

This shows how much corn crops depend on rain. Is it not unwise to depend entirely for *life* on such a crop.

Yours truly, OZAN.

Washington, Ark., May, 1859.

IRON CLASPS VS. ROPES, FOR COTTON Bales.

THE New Orleans *Picayune* reports:

The burning of the cotton bales came off at the Metairie Race Course on Saturday evening, in presence of quite a number of people. The object, as our readers doubtless know in advance, was to test the superiority of the iron tie over the ordinary hemp tie, for the security of Cotton bales against destruction by fire. The result was a triumphant vindication of the superior merit of the iron tie. The expense of the experiment, which was a very interesting one, was borne by Mr. Fassman, inventor and owner of the iron tie.

Four bales of cotton were subjected to the test, to wit: one bale of ordinary packing, from a country press, bound in rope; a similar bale bound in iron; one small compressed bale bound in rope, and a similar bale bound in iron. All were placed on properly erected piles of pitch-pine sticks, filled in with chips and shavings, in order that the fire when started, might be fierce and rapid.

At half-past 5 o'clock, the fire was fairly and equally applied to the windward side of the bales. In fifteen minutes, most of the ropes of the two rope-bound bales had parted, allowing the cotton to break out and burn rapidly in many parts. By this time, the bagging of the two iron bound bales was pretty well burnt off; but the iron bands remaining firm, no impression had been made upon the cotton but an outside charring, of no depth to speak of.

At 6 o'clock, the rope-bound bales had fallen down or spread out, in loose masses, with the flames burning freely in many places. At this time, the iron-bound bales resembled bales of black moss more than anything else, the bagging being all burnt off, and the outer, cotton charred. They remained firm on their supports, the air circulating freely on all sides of them. Only where the fire was hottest and longest applied, did there appear to be distension or material injury to the cotton.

At a quarter-past six, the outer fire having all burnt away, the iron-bound bales showed very little damage, whilst the loose and out-spread masses of cotton which had been rope-bound bales continued burning rapidly, with the appearance of soon being entirely destroyed.

The result of this experiment, we think, commends Mr. Fassman's iron tie to the serious consideration of all interested in the cotton trade.

[See, also, the letter of our esteemed correspondent, Dr. PHILIPS, in present number.]

PRESERVING WHEAT IN THE SOUTH.

MR. EDITOR:—I have been concerned in a Wheat Mill for the last twenty years, and to the best of my judgment one-fourth of the entire crop of wheat is lost every year by bad management, and one-half of the balance more or less injured from the same cause. I will give you my practice on the preservation of wheat. Wheat should not be cut too green, neither should it be too ripe—if so, there will be considerable loss by gathering and shattering out. Wheat should be bound up when cut in small bundles and well shocked in small stocks to dry. At the expiration of eight or ten days at most haul it in and thrash it out and expose it to the sun till dry. Wheat packed in houses to lay any time before threshing is liable to get abused by rats and white weevils. Wheat when well sunned should be put up in barrels or boxes not too much in a place. If put up in large quantities it is subject to heat and the black weevil. I am told to spread it on the floor does very well. Never put covers over wheat thinking to keep out rats for you can't do it—they are certain to cut in and abuse your wheat. The best and cheapest plan to prevent injury by rats, is to

leave the boxes containing the wheat entirely open; and keep a good supply of Cats about the premises and allow them free access to the granaries. Wheat injured by rats, weevils or heating, spoils the flavor of the flour, and is a great loss to all concerned, by which the consumer suffers the most. Every six weeks at most, I run my wheat through the smutter to give it air and cleanse it of the insects that accumulate in it. A good fan will answer the same purpose if the slatting bottom is lined with screen wire to convey the wheat from the fan, the insects will fall through and of course will be separated from the wheat. In 1852 at the time my Mills were destroyed by high water, I followed this practice and had as good flour from wheat three years old as the day it was cut.

AMOS W. OSBORNE,
[in *Chester (S. C.) Standard.*]

COTTON SEED CRUSHER---MANNER OF APPLYING Seed as manure.

EDITOR SOUTHERN CULTIVATOR—I see in the June number of the *Cultivator*, inquiry made respecting Cotton Seed Crushers, by "M. H. B.", of Cedar Town, Ga., I will say to him, to you, and all other persons that use cotton seed as manure, that every person that has land and cotton seed to apply as manure, has a natural and effective seed crusher, the best that was ever invented, viz: Mother Earth.

I will state what has been my practice and experience for the last ten years. I keep my seed well housed, dry and sound, until about one month before I wish to plant my corn; I then haul them out in the farm; put them in convenient piles, 20 bushels per acre, lap off for drilled corn, rows 5 1-2 feet apart, with a long rooter plow, fallow in that with a common shovel plow, so as to open a good furrow; sow the seed regularly all along in the furrow or row; then throw two furrows on each side of that with as good a one-horse turning plow as I can command, which makes a nice bed of four furrows on the seed, in one month's time, they are effectually crushed, or spoiled, so they will not come up, if you should, in planting your corn, stir a few of them up near enough to the surface. When the time comes to plant, I open the bed with a short rooter plow, so as not to stir up, if any, but little of the seed. When the ground is in good order, &c., I cover with a board of good length well hollowed out, otherwise I cover by running one rooter furrow so as to fill up the one in which the corn is deposited. My experience is, that my corn thus manured fires less during drouth than corn having no manure at all, and I always get an ear in proportion to the stalk; whereas, under the old plan of rotting or heating the seed before they were applied, I usually made a good stalk, but rarely ever get ears in proportion, for the reason that the strength of the seed were measurably gone before they were applied, and consequently their strength was exhausted before it could mature the ear.

The result of my whole experience is, that I have realized at least fifty per cent. more in the production under the plan of putting them in as above, than under the old, or rotting plan.

The above process will do as well for cotton as corn, but as the cotton rows are much narrower, the quantity should be increased in proportion. My experience is, that it is much more profitable to apply seed to corn and other manures to cotton, for the reason (if no other) that the young cotton plants die out, usually, very bad where it is manured with the seed.

THOMAS F. McGEEHEE.

Meriwether County, Ga., June, 1859.

Domestic Economy and Recipes.

SUMMER DRINKS.

A Cheap and Good Drink for Summer.—Careful house wives will cut out the following receipte for making a pleasant, palatable and wholesome beer, and paste it in their recipe book:

It is made of honey. First press and strain your comb so as to obtain the clear honey. Then soak the remaining wax and honey in hot water, and press it again. Boil and skim the sap so obtained. To every twelve quarts add one pound of dried apples and half a pound of hops. Boil again. Skim and strain the mass through a cloth. Then take a small portion out; add to this a little yeast, and keep it in a warm place until it works. Then pour it back into the main liquor, and let the whole work three or four days. Then draw it off into a clean tub; let it stand twenty-four hours; draw it off in bottles, and place these, well corked down, in the cellar. A few corks may fly, but the remainder will pay for the trouble.

Domestic Ginger Beer.—Two gallons of ginger beer may be made as follows:

Pat two gallons of cold water into a pot upon the fire: add to it two ounces of good ginger, and two pounds of white or brown sugar. Let all this come to a boil, and continue boiling half an hour. Then skim the liquor, and pour it into a jar or tub, along with one sliced lemon, and half an ounce of cream of tartar. When nearly cold, put in a teacupful of yeast, to cause the liquor to work. The beer is now made; and after it has worked for two days, strain and bottle it for use. Tie the corks down firmly.

VERMIN ON HORSES AND FOWLS.—A correspondent says—"There is in my barn some kind of a louse that is very troublesome to horses and fowls. I wish to obtain a remedy." If the horses are very much troubled, sprinkle snuff on the parts where the vermin are most numerous. But they will get rid of most of the lice when they go out to grass and shed their old coats. As to the fowls, provide dry sand, with which some sulphur is mixed, for them to dust themselves in. Sulphur may also be put in the water they drink. Wash all places in the building where the vermin appear, with tobacco water, applied with a white-wash brush.—*Boston Cultivator.*

VERMIN RIDDANCE.—Half an ounce of soap boiled in a pint of water, and put on with a brush while boiling hot, infallably destroys the bugs and their eggs. Flies are driven out of a room by hanging up a bunch of the plantain or fleawort plant after it has been dipped in milk. Rats and mice speedily disappear by mixing equal quantities of strong cheese and powdered squills. They devour this mixture with greediness, while it is innocent to man. When it is remembered how many persons have lost their lives by swallowing mixtures of strychnine, &c., it becomes a matter of humanity to publish these items.—*Hall's Medical Journal.*

STUCCO, OR WHITE WASH.—To make a brilliant Stucco white-wash for all buildings, inside and out, take a bushel clean lumps of well-burnt lime, slacked; add one-fourth pound of whiting or burnt alum pulverised, one pound of loaf sugar, three quarts of rye flour, made into a thin and well boiled paste, and one pound of the cleanest glue, dissolved as cabinet-makers do. This may be put on cold within doors, but hot outside.

GALLS ON HORSES, &c.

One of the best means to prevent galls on horses is to wash the parts most liable to injury with whiskey saturated with alum. We find in one of our exchanges the following recipe for an ointment for wounds and sores of all kinds, and for horses when galled by the saddle or collar, and also for broken chilblains:

"Take of honey twelve ounces, yellow beeswax four ounces, compound galbanum plaster six ounces, sweet oil half a pint. Put the honey into a jar by the fire, then melt the other ingredients and mix them together, spread very thin on linen, and change twice every day."

INDIAN PUDDING.

The *Florida Sentinel* tells us how to make this dish:—"Add to 1 pint of cold milk, 1 pint of meal, 1 teaspoonful of salt, 2 tablespoonsful flour, 1 teaspoonful of the essence of lemon, one teacup full of sugar or syrup; and stir all to a batter, then add two quarts of boiling milk, stirring until well mixed, and bake three hours in an oven heated so as to boil. Serve hot with butter.

The above is cheap, healthful, and one of the *best* of puddings. The essence or oil may vary according to taste."

FOR FISTULA.—Salt, one tablespoonful; soft soap, one tablespoonful; whiskey, one tablespoonful; turpentine, one tablespoonful. Mix in a tin cup, place on the horse's nose a twitch, to prevent his moving; have your mixture placed on a little fire and as soon as it boils up, pour immediately upon the diseased part; repeat the operation every ten or twelve days, till applied three or four times, if necessary. It will not take off the hair or leave any scar.

I procured the above from an old experienced farmer, tried it in one instance, and it proved successful. I took it early, though.

FRAGRANT OIL.—Collect a quantity of the leaves of any flowers that have an agreeable fragrance; card thin layers of cotton, and dip into the finest sweet oil; sprinkle a small quantity of fine salt on the flowers, and lay first a layer of cotton and then a layer of flowers, until an earthenware vessel, or a wide-mouthed glass bottle, is full. Tie the top well over with a bladder, then place the vessel in a southern aspect, so that it may have the heat of the sun; and in fifteen days, when uncovered, a fragrant oil may be squeezed away from the whole mass.

GRUB IN SHEEP.—I send you this recipe, which will be found to effect a perfect cure for grubs in the head of sheep:

Take one quart of whisky and two ounces of yellow snuff, mix and warm to blood heat. Let one man hold the sheep and another take a small syringe and discharge about a teaspoonful of the mixture into each nostril. It is certain cure. My father met with quite a loss in his flock; he tried this remedy; found it satisfactory, and never lost another sheep.—*Michigan Farmer.*

FOR HEAVES IN HORSES.—Take smart weed, steep it in boiling water till the strength is all out; give one quart every day for eight or ten days. Or mix it with bran or shorts. Give him green or cut up feed, wet up with water, during the operation—and it will cure.

LICE ON CATTLE—REMEDY.—Take white oak bark, boil it in water—making a strong decoction; wash the animals on the back and on the sides. In twenty-four hours the lice will be completely tanned. Tanner's oil is also first rate.

SOUTHERN CULTIVATOR.



N. ORB. SC. N.Y.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

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NO. 8.

WILLIAM S. JONES, Publisher.

D. REDMOND and C. W. HOWARD, Editors.

See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—The weeds must be entirely kept under during the present month, and to that end, keep your plows and cultivators and sweeps constantly moving in the *Cotton* field. This regular stirring and pulverization of the soil will also have the effect of encouraging a larger growth, and preventing the falling of the forms. Let your culture, however, not be so deep as to interfere with or injure the roots in any way, or you will do more harm than good. Toward the latter part of the month, begin your preparations for picking, and as soon as the bolls begin to open freely, set the hands at work gathering. Have all seed cotton hauled in wagons from distant fields to the gin-house, and do not require your negroes to waste their time and strength in carrying heavy baskets. If you wish to weigh the picking of each hand, it can be done by the overseer, before it is put into the wagons, or each one can mark his basket and have it weighed at noon and night, in the gin-house.

Corn.—All early planted corn is already laid by, in most sections; but very late fields may yet receive another careful surface working, laying it by level, mellow, and free from weeds.

Cutting up Corn Stalks for Fodder.—In our last number we offered some objections to the very common practice of pulling fodder, and advised the substitution of drilled corn, or Chinese Sugar Cane, which we have long found to be an excellent and economical article, both for "soiling" (or feeding green) and winter hay. We will offer another hint for the consideration of our readers. It is, to cut up their corn stalks at the ground, as soon as the ears begin to glaze, or get hard; set up in shocks every twenty or thirty hills thus cut, and when the whole is perfectly dry, haul under cover or carefully stack up; shuck or strip off the ears at your leisure, and save all the stalks, blades and shucks for the winter feeding of stock. This hint is especially intended for small planters—those who aim only to raise sufficient corn for their own use,

and who desire to make the most of it, and to save all that is worth saving. Our objections against fodder pulling, (as before stated,) are that it is a slow and laborious process, and that the yield and weight of the grain is lessened by prematurely depriving the plant of its leaves. If fodder is pulled before the grain becomes glazed, you certainly injure the grain; and if you do not pull until the ears are fully ripe, the fodder is nearly worthless. The proper plan is cut up corn as directed, just when the grain is passing from the doughy state to the hard kernel. At this period of its growth, the plant has elaborated sufficient sap to mature the grain perfectly after it is cut, and the surplus starch, gum and saccharine matter which it contains will be preserved in the stalk and leaves, instead of being changed to hard and worthless woody fibre, as when the plant is allowed to become perfectly dead ripe. Another advantage in thus cutting up corn is, that as soon as it is hauled off, the ground is ready for the plow, and after it has received a good manuring, you can proceed immediately with the sowing of your winter oats, rye, barley, clover, etc. Let those who have scanty crops try it, even on a small scale, and they will, we doubt not, be well pleased.

Feeding Corn Stalk Fodder.—In order to use corn with proper economy, every farmer and planter should have the "Little Giant," "Young America," or a similar mill for grinding both corn and cob. To this should be added a Feed Cutter, suitable for cutting hay, sheaf oats, corn shucks, &c., &c. (The "Universal Cutter," costing \$12 in New York, is a good implement.) With this latter implement, the corn stalk fodder, shucks, oats, hay, and other rough feed, may be finely cut up, and when mixed with a proper portion of corn and cob meal, slightly moistened, (with an occasional sprinkle of salt,) you have an excellent and cheap provender for all kinds of farm stock. Roots, such as Turnips, Sweet Potatoes, &c., when plenty, may be added to the foregoing from time to time, and they will be found to give increased relish and improved health to your animals.

Turnips.—Ruta Baga, Red Top, Early Flat Dutch, Yellow Aberdeen, Norfolk and Globe, and other Turnips, should be sown from the 1st to the 25th of this month. The ground should be repeatedly plowed very deep, and

pulverized as fine as possible. A deep, rather light and fertile sandy loam is best for this crop, and such soil ought to be plowed at least ten or fifteen inches, and thoroughly harrowed. Sow in drills from two to three feet apart, plants standing in the drill from six to twelve inches. Stable manure, (ten or fifteen loads to the acre,) woods-mould, ashes, and bone dust, equal parts, (six or eight loads to the acre) or three hundred pounds of guano, scattered broadcast and plowed in, will give you a good crop. Should you wish to manure in the drill, open a wide and deep furrow with a long shovel-plow, scatter your manure thickly along this drill, throw a flat, broad bed on the manure with a turning plow, and after raking the surface smooth and even, drill in the seed as above directed. From one to one and a half pounds of seed, mixed with sand, carefully sown, will be sufficient for an acre. [A friend recommends the sowing of the seed late in the afternoon, leaving the drill open and the seed exposed to the action of the dew until daybreak, next morning, when they must be covered, and the ground rolled or pressed down firmly on them. This plan seems well worthy of a trial in dry weather.] If you have plenty of leached ashes, you may top-dress the ground with ten or fifteen bushels per acre, after sowing. It will be well, also, to dust the plants when they first come up, with a mixture of ashes, soot, plaster and salt, (a bushel to the acre,) to prevent the attacks of the fly. Continue this until they get into the rough leaf, when they may be considered out of danger. When the plants are well up, clear out all grass and weeds carefully with the hoe, and thin them to a stand of from six to twelve inches apart, according to the size of the variety. After thinning, work them out from time to time, until the tops shade the ground, when you may lay them by.

Sweet Potatoes.—Keep the earth fresh and loose around the plants, and the rows entirely free from weeds, until the vines take complete possession of the patch. Lose no time now in cutting and setting out vines for the production of next year's seed.

Hay and Fodder.—Cut and carefully save drilled corn fodder (as directed in July number, page 295): also, make all the hay you possibly can from Crab (or Crop) Grass, Crowfoot, Pea Vines, tops of Ground Peas, Bermuda Grass, Chinese Sugar Cane blades, Millet, etc.

Ditching, Hauling Muck, Woodland Pastures, Strawberry Beds, etc.—The dry weather of this month will be found favorable to the ditching and draining of low, wet lands, clearing up of swamps, cutting underbrush, digging and embanking fish-ponds, preparing Strawberry patches, clearing the undergrowth of forests for woods pastures, hauling of muck to the compost heap, destruction, by compost fermenting or burning, of noxious weeds, etc.

THE KITCHEN GARDEN.—All plants of the Cauliflower, Broccoli, or Cabbage family, may be set out the latter part of this month, for fall and winter use. This month may be considered the *second spring*, in the South. All work done in the spring should now be repeated, and will, in most cases, furnish us with excellent vegetables until frost. Continue to transplant Celery. Full crops of the different kinds of Turnips should be sown during the month, as directed above. Sow seeds of Beets, Salsify, Carrot, etc., for winter use—shading the ground, by a slight, "brush arbor," from the sun. Radishes, Spinach, Lettuce, &c., may be sown, and Snap Beans and English Peas may be planted, and the drills, as soon as filled up, covered with pretty heavy mulching, at least two inches thick; saw-dust or well rotted leaves are very good for it; the young plants will easily come up through the mulching. Plant, also, Melons and Cucumbers for mangoes and pickles. Keep down all weeds—use the hoe, and water freely. Plant a second or full crop of Irish Potatoes and Peas, mulching both heavily with leaves. The

Purple Egg Plant, Tomatoes, and Lima Bean, may be planted for a late crop, and will come yet, with favorable "seasons." Keep your Strawberry beds clean, open and mellow, now, if you desire to increase your plants, and encourage the growth of runners by an occasional watering. If you do not want runners, cut them off and turn them under, to give back their substance to the bearing plants. Give these occasionally a light top-dressing of leached ashes just before a shower, or water them with a *very weak* solution of potash. Gather all your ripe garden seeds. It is a mistaken notion that we cannot save our own garden seeds; we can and *ought* to do it.

THE ORCHARD AND NURSERY.—Gather up all fallen and defective fruit, and feed to the hogs. Saves stones of the Peach to produce new varieties and for seedling stocks. Let the Peaches from which you obtain seeds for planting be *fully ripe*, if you are endeavoring to re-produce them or originate new varieties. Bury the Peach stones at once, or plant them immediately, in drills, where you want them to grow. This is the best way. They will come to up next April. Try a few hundred or thousands yearly, and you will, from time to time, be rewarded with valuable Southern seedlings, especially suited to our own soil and climate. Budding of all stone fruits may still be continued by those who have the proper stocks. Insert the bud on the north side of the stock, early in the morning or just before night fall, ceasing operations in the heat of the day. Now is, also, the time to make cuttings of Evergreens.

THE FLOWER GARDEN.—Collect seeds of all Annuals, and preserve them carefully. Bud Oranges and Lemons. Propagate Aloes and the Cacti, (or Cactus) by slips. Sow bulbous-rooted flower seeds to obtain new varieties. Stake your Dahlias and thin out your flowers, if too profuse. Clip Box edgings in moist weather. Cut and roll Grass plots and lawns. Clean up walks, put on fresh gravel, and roll smoothly. Water your potted Annuals and other plants daily, in hot weather. Sow Tulip and other bulb seeds. Gather all valuable seeds as soon as ripe, and save for future use. Use water frequently, as heretofore directed.

OUGHT OUR LEGISLATURES TO AID AGRICULTURE?

CERTAINLY, if Agriculture needs aid from the Legislature. Why? Because the great bulk of the people of the South are engaged in agricultural pursuits, and they have the best right to say what they will do with their own. Let us look into this matter closely. For the sake of distinctness, in this argument, our remarks will be confined chiefly to one State—Georgia. The positions taken will, however, be of general interest and application to the Plantation States.

According to the Census of 1850 there were in Georgia 123,243 white males over 15 years of age. Of that number, 20,000 were engaged in commerce, trade, manufactures, mechanic arts and mining; 11,505 in labor not agricultural; in the army 18; in sea and river navigation 282; in law, medicine and divinity, 2,815; other pursuits requiring education, 3,942; civil service, 416; domestic servants, 15; other occupations, 173; in agriculture, 82,362. More than two-thirds of the whole white population engaged in agriculture, and the whole of the black population, with the exceptional cases of black mechanics and servants.

Was there ever a people more purely agricultural? Our whole military list 18 strong, and our civil list o

governmental employees 416, and of sea faring men 282. This proportion occurs in an area of nearly 60,000 square miles and in a population of perhaps, one million. On this extent of surface and in this amount of population, we have not a single town numbering 30,000 inhabitants. The census returns of Georgia would bewilder a European statesman. To an American, they but illustrate the transcendent excellence of the governmental system which works perfectly with an army of 18 and a commercial marine of 282 men.

The contrast between our condition as to the employment of our population, and that of some of the other States of the Confederacy is very striking. In Massachusetts about one-fifth of the males are employed in agriculture; Connecticut about one-third; Pennsylvania one-third; New York a little more than one-third. Yet each one of these States have felt bound to sustain the industry of the third of its population by Legislative aid. In Georgia, where two-thirds of the whites and nearly all the blacks, representing the great bulk of the property of the State, are engaged in agriculture, we might naturally expect that our Legislature would foster, in every conceivable way, the employment of the great mass of its citizens. What are the facts in the case? We have before us a very badly executed volume of the Acts of the General Assembly of the State of Georgia in 1858. Those Acts are 223 in number. Of these 223 acts, 20 relate to the creation of new counties and changes of county lines; to Banks, 3; to Railroads and joint stock companies, 9; to the judiciary, 30; to cities and towns, 22; to local and private subjects, 44.

The above subjects cover more than one-half the Acts of the last Legislature. What was done by it for Agriculture? The volume of Statutes commences thus:

"PART 1. PUBLIC LAWS.

TITLE 1.

AGRICULTURE AND COMMERCE.

No. 1.

AN ACT to repeal an Act entitled an Act to prohibit non-residents from hunting, ducking and fishing within the limits of the State of Georgia, and assented to the 23d day of December, 1857.

Section 1st. Be it enacted, that said Act referred to be and is hereby repealed. Provided, That the counties of Chatham, Bryan, Liberty, McIntosh, Glynn and Camden shall be exempt from the operations of this Act, and that aforesaid Act of 1857 shall be and remain in force and virtue in the counties above named and no others."

This important measure, whether of Agriculture or Commerce, or both conjointly, we are unable to say, received the signature of His Excellency, the Governor, on the 9th of December, 1858. The Agricultural energies of the Legislature exhausted themselves in the passage of the above important statute, which announces to the world that people of all kindred and climes may shoot ducks or catch fish anywhere in this free and magnanimous State of Georgia, except in the counties above mentioned. There is nothing more in the volume of Statutes under the head of Agriculture. This fish and duck Act stands solitary and alone in all its grandeur, in the legislation of a

body, nine-tenths of whose constituents are directly or indirectly connected with the cultivation of the soil.

We are surprised at this result, inasmuch as Committees were raised last autumn, by the State Agricultural Society, the Cass County and Hancock Societies, each to present memorials to the Legislature on the subject of the establishment of an Agricultural School and Experimental Farm. Did these Committees present their memorials? If they did, the papers gave no account of the presentation. Did they undertake a grave duty and slight it? We hope the Societies mentioned will each require the Report of their Committees this fall. We were some time in Milledgeville during the session. We never heard the claims of Agriculture presented. Such was the temper of that body, it is our firm belief, that if the parties to whom this subject was entrusted had done their duty, liberal legislation might have been obtained in favor of any judicious plans for the advancement of the Agricultural interest.

We have said that the Legislature ought to aid Agriculture, if it needs aid, and the reason given is, because the great mass of the people of Georgia are engaged in Agriculture.

But does it need Legislative aid? Why cannot Agriculture take care of itself? It can take care of itself. It has improved. It will continue to improve. It is impossible, however blind we may be to our own interest, however parsimonious or unequal in our disbursements of the State funds, that we should be otherwise than favorably affected by the wise legislation which has occurred in other States, and whose every change in opinion or practice we instantly feel, and in which, during the last thirty years, the agricultural advancement has been marvelous. It is impossible that the influence of the Agricultural Press, and chiefly that of the *Southern Cultivator*, can have failed to create, in many minds, a desire for an improved agricultural practice. It is impossible that the example of a few distinguished agriculturists in our State can have been witnessed without salutary results. It is impossible that our State and County Agricultural Societies can, for so long a time, have held their annual and almost festive meetings without good results to the agriculture of the State. We are improving. But it is slowly. We crawl when we should walk, we walk when we might run. We need assistance to bring us at once to a point at which we shall otherwise indeed arrive, but after the expiration of a long period of time, after much ill-directed private effort, after great waste of money earnestly but ignorantly expended, and after a large portion of our soil has been scoured so severely that recovery has become hopeless.

There are obstacles to rapid and extended improvement in agriculture which do not exist in many others of the most important pursuits of men. Commercial and mechanical enterprise seeks the city. Organizations are easily effected. Intelligence is rapidly communicated. Ideas are freely and readily interchanged. Competition at once stimulates enterprise and directs its energies to wise ends.

On the contrary, the efforts of agricultural enterprise are, to a degree, desultory. Farmers live apart from each other. They cannot daily meet upon "Change." Association is effected with more or less difficulty. Co-operation is attended with inconvenience. The habits of agricultural life induce reluctance to change, either in opinion or practice. Hence, left to itself, Agriculture advances, by comparison, slowly. It needs direction, incitement, concentration.

Notwithstanding the superior facilities of other pursuits over agriculture, in the control of capital and in power of concentrated effort for their own advancement, to many of these pursuits the State has freely given its aid. It has aided internal improvement. It has appropriated money to open our rivers. It has built a great Railroad. It has assisted other Railroad companies. It has aided General Education. It has given largely to Mechanic and Collegiate instruction. It has contributed to medical science. It sustains a military school. All these ends are worthy the assistance of the State. All of them would ultimately have been reached without governmental aid. But tedious years of private effort have been superceded by the powerful impulse which the common wealth has afforded.

An impregnable precedent thus sustains our demand for aid to Agriculture. The State cannot prefer the effect to the cause—the less to the greater. Having aided companies of her citizens in constructing roads for the transportation of crops, it cannot ignore the soil which produces these crops.

How can the State aid Agriculture?

1st. By means of her Railroad. It is a universally admitted truth, that the use of Lime is the basis of improved agriculture. The private Railroad companies in Georgia exhibit the most commendable liberality in the transportation of this and other manures. The State Road, in a measure, shuts out the State from the use of Lime for manure. The authorities of the Road are not to be blamed for this restriction. It has always been understood that the Superintendent, who makes the greatest annual money return to the coffers of the State, apart from other considerations, best answers the end of his appointment. Let there be a special enactment, by which the Superintendent of the State Road is required to transport manures at a nominal rate. This is not the place to speak of the vast increase of our cotton crop by the free use of Lime, or the amount of taxable property through the appreciation in the value of land restored by liming. Throughout the North, wherever agricultural improvement has commenced, and as it has advanced towards the South as far as Virginia and Maryland, in all cases everywhere the Liming has been the precursor of the improvement.

2nd. The State can aid Agriculture by a Geological Survey of her territory. There are, doubtless, beds of marl existing of which the cotton planter is ignorant, and which, if made known to him, would be worth, to him, more than a mine of gold. There may be "green sand," which has already given an almost fabulous value to the once sterile plains of New Jersey. There may be apatite or natural phosphate of lime, than which, a more valuable

manure does not exist. There may be plaster or gypsum. There may be salt, of which strong indications are given in one part of the State. Every increase of consuming and non-producing population benefits the former. Mines and mechanical pursuits require large bodies of men. Our mineral wealth is yet unknown. Apart from the precious metals the sources of industrial occupation in our State are varied. Beyond those generally known, we have alum enough to supply this country. We have the material for the manufacture of sulphuric acid far beyond our commercial or agricultural wants. We have the material of copperas in equal abundance. This enumeration might be carried further, but it is needless. All these sources of wealth will, in time, be discovered and used. A competent Geological survey would at once bring them into notice. Capital would come in to use them, and in the increase of population agriculture would thrive, and the whole State derive that benefit which invariably follows the adoption of a mixed husbandry.

3rd. The State can aid agriculture by the establishment of an Agricultural School and Experimental Farm, with which an Agricultural and Economic Museum might be connected, an Agricultural and Scientific Library founded, and at which place the State Society might hold its annual meetings and dispense its annual premiums to agricultural skill.

We need an Experimental Farm. It is, perhaps, at this time the greatest need of Southern Agriculture. It is no experiment to go into the woods, cut down the timber and clear and wear out the land. But it is a matter of experiment, as to that which is the cheapest, most rapid and most permanent method of making the land good again. We are either to be informed as to this method or abandon our homes. In regard to this subject we have almost everything to learn. And in no way can our Legislature so effectually do the greatest good to the greatest number of Georgians, as by teaching us this lesson in the shortest practicable time.

We state a fact which we conceive to be of great importance to the land holders of the South. Their attention is earnestly called to it. The fact is this: There is not a country in Christendom in which the artificial grasses are not cultivated in which land bears a high price. There is not a country in Christendom in which these grasses are extensively cultivated in which land does not bear a high price. Take, for instance, Spain in which land is low in value—it rises in France—it still ascends in Belgium—it is highest in Holland, which is almost an uninterrupted meadow. There are more than 200 of these grasses cultivated. Several of the foreign grasses have been tried unsuccessfully at the South. But the trial of one or one hundred of these grasses is by no means final. The other hundred remains to be tried. The subject is of sufficient importance to justify the most pertinacious inquiry. In the present posture of our Agriculture it is in fact the great subject before the agricultural mind. The Flemish maxim, is inexorably true: "without grass, no cattle, without cattle no manure, without manure no crops." The whole subject of the native grasses and

and herbage plants of the South is yet to be studied. This study requires time, money and science. Where shall we find men in whom these three requirements co-exist, whose inclination will lead them in this direction. We have no Young, no Sinclair, no Lawes. The country is too young to produce them. The State should furnish these experiments to the people.

What is the best breed of cattle? The advocates of the Durham, Devon Ayrshire, Alderney and Brahmin, will each tell you that his breed is the best. Who shall decide this question? We need some point at which each of these breeds shall be assembled, their comparative merits tried and determined for the benefit of the people. Ignorance will regard this subject as unimportant. There are about a million and a half of cattle in Georgia. A breed of cattle, that will give an increase of 20 lbs. of meat annually, with the same food over our present stock, will give a total increase of 30,000,000 lbs. of beef, which, at 4 cents per pound, will give an annual increase of \$1,200,000—more than three times the increase of the State Railroad, at "\$1,000 a day."

We present the strange position of a people holding cheap land, much of it waste or forest, yet owning more cattle than sheep. There are, perhaps, one million sheep in Georgia. An increase of two pounds of wool to each sheep would give a total increase of 2,000,000 pounds of wool—at 30 cents per pound this annual increase would amount to \$600,000—still more than the annual income of the State Road at "\$1,000 a day." There certainly is not one of the improved breeds of sheep which will not give fully this increase. Will any one of these breeds thrive with us on a large scale? It requires capital to try it. But capital is timid and prefers the beaten path. The burden of trial rests upon the State.

The production of cheap wine is intimately connected not only with our commercial prosperity, but with the advance of good morals. We have everything to learn in connection with this important industry. Where and how shall we be taught, for we must teach ourselves. Experience demands high pay—perhaps too high for private fortunes.

We know enough of fruit-culture to be assured that the finest fruits thrive well with us. But which are the best, under what culture, in what soils and in what exposure?

We cultivate an almost endless variety of corn. Which is best? To determine this would require labor, space and money. Yet the decision of this question would greatly affect the grain product of the State. The corn crop of Georgia is somewhat over 30,000,000 bushels. Increase the weight of the corn by two pounds to the bushel and it gives an increase of more than 1,000,000 bushels.

We cultivate many kinds of wheat, each of which is liable, to a greater or less degree, to the attacks of enemies. Which is most certain, most productive and most secure against its enemies? Science has suggested defences. Are these defences real or imaginary? Again, labor, space, money and especially time are necessary to give assurance.

Insects prey upon our cotton and other crops. Entomology is a life-time study. New York, with commendable liberality, employs an Entomologist. The entire relation of this class of enemies to our crops at the South is yet to be ascertained. The first word of unequal legislation at Washington injuriously affecting the price of our staples is met by a simultaneous outburst of indignation from the whole South. Yet we let a worm ravage our

crops, and sit still and look on in stolid ignorance. We defy men, we succumb to an insect.

It would too far prolong this article to attempt to pass through the entire area of subjects, illustrating the importance of a model and experimental farm. We close our remarks upon this point with one consideration. The mass of men read but little. And of those who read, but a small proportion make their own the thoughts which they find in books and periodicals. That which they see they remember. If in a central position in the State, easy of access, the State had such a farm as has been suggested, at which her Agricultural School was established, at which one or more fairs were annually held, at which her Agricultural Museum was placed and at which a perfect culture was practiced and everything which promises well for Agriculture in the way of stock, fruits, grains and grasses was fairly tried, it would be a great centre of attraction to this strictly agricultural State. It would be constantly visited by our people. Impressions would be received which it would be difficult to efface. An impulse would be given to our Agriculture perhaps attainable in no other way.

Such an establishment would cost a great deal of money. Much of it would be unwisely expended; but experiment always presupposes hazard of loss. Yet experiment is our great teacher. Advance in knowledge cannot occur without it. In this country of limited fortunes, this hazard must be encountered by the State, to equalize the loss and to render it insensible by diffusion among a great number.

We had designed to dwell upon the importance of an Agricultural School endowed by the State, chiefly with regard to the education of young men to become common school teachers and overseers; but the consideration of this subject must be deferred to another opportunity.

The measures suggested will require time for their completion. An immediate impulse can be given to Agriculture by an appropriation of \$10,000 to be expended annually by the State Agricultural Society in Premiums.

Massachusetts is now offering a Premium of \$1,000 for the best ten acres of forest trees, planted by hand and suitable for ship building. Our sea coast abounds in land exhausted by bad tillage, yet in which the live oak grows with vigor. Fifty years from this time, five hundred acres of our poorest sea coast land now planted in Live Oaks would be a fortune to its possessor. A large belt of such plantations would be a source of commercial prosperity to the State. Yet they will not be made without the application of a stimulus. It would be a source of gratification to every friend to Agriculture in the State to see our Society placed in a position to offer such rewards to agricultural skill and enterprise as will stimulate it to the most active exertions.

It is our firm conviction that our legislators will do whatever is proper when they understand that the people so desire it. Do the mass of our people desire that the Legislature should aid Agriculture? If they do not, it is because they are uninformed. Will the intelligent friends of improved Agriculture take this matter in hand? Will they make it a subject of conversation among their neighbors? Will they form Agricultural Clubs where they do not exist? Will they take some measures to obtain an expression of opinion from the people, as to the propriety of the Legislature making appropriations for the benefit of Agriculture? Fortified by such an expression, the timid legislator will not be afraid to act. Will not our Agricultural Societies send representatives to Milledgeville, not members of the Legislature, who, acting in concert, may fitly and truly represent the wants of Agriculture, and secure wise legislation in reference to it. They would represent not a company or a corporation, or speculation, or a party, but the people of the State, and in reference to their most important earthly interest.

It is time that the planters of the South were up and doing. There is no necessity that we should exceed the Scriptural injunction. We need not love our neighbor better than ourselves. We have, perhaps, bestowed sufficient attention upon the affairs of our sister States and Territories of this Confederacy. While we have been fiercely contesting in regard to territory, which we never saw and never expect to see, either we or our posterity, the territory of our farms has been stealing away down the branches, creeks and rivers to the great deep. It has been the curse of that gallant old State, South Carolina, that she has been taking care of the Nation, to the neglect of her own soil. It has placed her in the rear when she ought to have been in the advance. Words are inadequate to express the wicked folly of the Abolitionists. Yet they have done us less harm than our own defective Agriculture. We have millions of acres to reclaim. Under an improved system of cultivation, we have the cheapest and best labor and enough of it to accomplish this purpose. With lands constantly improving and with crops constantly increasing, we may smile at the idle efforts of these fanatics. When our lands are reclaimed and we want more, we or our children will carry our negro population wherever they will be profitable in spite of all the abolitionists under the sun.

Let us increase our strength by increasing our Agricultural wealth. Let us appeal to our Legislatures. The cost of the idle debates of one session would, if expended in agricultural premiums, give an impulse to agriculture which might be felt favorably by remote generations.

In Georgia, there is to be a Convention of the friends of Internal Improvement, to devise the means of securing the aid of the State to Internal Improvements—meaning Railroads. Why should not another branch of internal improvement—agriculture—be represented? Why should not the advocates of State Aid, be made to understand that the assistance of the planters to their views can be rendered only on condition that aid to Agriculture is incorporated into them? The planters and farmers can obtain the necessary assistance if they will it. If we do not obtain it, the failure will be owing to our ignorance, or want of concert or supine inactivity.

H.

LOW PRICE OF SOUTHERN LANDS--REMEDY, Etc.

EDITORS SOUTHERN CULTIVATOR—I am not farming to much extent and it may, therefore, be thought presumption in me to give my views on the following subject; but after carefully and anxiously reading the article commenced in the May number and concluded in the June number of your valuable journal on "the Cheapness of Lands at the South, its Causes and Remedies," I have determined to trouble you with my thoughts on that subject. If this article has but the effect to excite the minds of those capable of unfolding the subject, I have effected my object. With this spirit I send you this, which, should you think it worthy, give a place in the *Cultivator*. I admit, with that article, the evils exist, and would gladly see them remedied, but differ as to the causes and remedies.

There are four causes of exhaustion to our soils, and, consequently, of lessening their value, viz:

1st. Our long hot summers.

2nd. Our heavy washing rains of winter.

3rd. The things cultivated.

4th. The mode of cultivation.

The first and second are peculiar to the South. They are the dark side of the picture of our snowy fields and sunny skies. They cannot be removed, but may be greatly warded off. With them the North has little or no trouble. Any one who will carefully observe the effects of one of our long summer drouths on the soil, will, un-

hesitatingly, say that it injures the soil more than any crop raised by us. By it, nearly every liquid and volatile particle is evaporated. So great is this heat that in places it cracks the earth to the depth of twenty feet. In parts of Texas, well-diggers have seen traces of these cracks even deeper than that.

2. *The Washing Rains of winter*.—The whole South is subject to tropical changes. The rainy season coming in winter. When it sets in, the rain falls in torrents. The earth is never frozen during our winters, but completely softened by these rains. In Texas, when rain sets in it fills these deep cracks with the top soil, leaving gravelly ridges between, resembling huge potato ridges. When these do not exist, owing to the unfrozen state of the ground, softened by the rains and our method of cultivation, the remaining portions of the soil are mostly washed away.

In the North their summers are short and warming—not burning; and in the winter the earth is mostly frozen, the rain by freezing and the snow, instead of washing, forms a mantle of protection.

3. *The things Cultivated*.—The principal objects are cotton and corn raised from year to year on the same ground without change, unless it be from cotton to corn and from corn to cotton. Annually extracting from the soil the ingredients which compose the food of those plants until the soil is exhausted of them, however plenty in other ingredients, and then thrown away. The author of that article says that "cotton, of all our crops, is the least exhausting," &c. Cotton, as it has but few lateral roots and is sustained principally by one large tap root, may, of itself, take least from our soil; but its clean culture and continued turning of the fresher soil to the burning sun makes it the most exhausting of all crops. Its clean culture and few lateral roots leaves the soil without anything to hold it together, and in the worst condition possible for our heavy winter rains.

In the North, the principal objects of cultivation are grasses and the cereal grains, the stalks of which shade the ground in summer, and their root-lets form a complete tie to the soil against their thaws of spring. The stubble and stalks which they turn under in the fall, after the injurious heat of summer is over, forms a coat of manure which, by rotting, keeps the soil warm and mellow.

4. *Our System of Cultivation*.—As the author of the article truly remarks, "lands in the South are bought with the calculation of being worn out and deserted." The clearing is about one-fourth done. For the first two years no crop is raised from shade and unbroken soil. As soon as the trees die and the rootlets rot, the soil, for want of something to hold it together, from scratching instead of plowing and that up and down hill, washes in a most frightful manner. Deep and horizontal plowing and hill-side ditching are ridiculed. Manuring is almost wholly neglected except a handful of cotton seed in the hill. A very light and temporary affair. Our plowing averages from two to six inches deep.

In the North, notwithstanding they have none of our winter washing rains, they horizontalize their plowing and efficiently hill-side ditch their lands. Their plowing averages from 5 to 15 inches deep. In addition, they harrow and roll their lands after plowing until the soil is completely pulverized, and smoothed as near as may be. They manure without stint.

REMEDIES.

That author recommends stock and their raising as a remedy, by furnishing manure, &c. Although I am a strong advocate for stock-raising, the idea that stock enriches the soil seems to me merely speculative. True, stock are great collectors of manure, but do not create a particle. The richness scattered over a great extent of

country they bring home to their resting places at night, but what they bring there they have taken from their feeding quarter, so that while they enrich their pen they impoverish their pasture. Add to this, more than half their food passes off in insensible perspiration. Of that which remains a great deal passes into bone, blood and flesh, while no inconsiderable amount is consumed in keeping up the wear and tear of the animal system. Of all they eat and drink there remains for manure but the indigestible parts, and the decayed portions of the animal which pass off in the form of dung and urine—perhaps not a tenth.

It seems to me the reason of the thing suggest the following remedies:

1st. Deep horizontal plowing and ditching. This will keep what you have and what you add.

2nd. Turning everything into manure which will make it, husbanding it as you do your gold, and scatter it over your field with a liberal hand.

3rd. Shade the soil. This cannot be done to better advantage than by sowing, in abundance, grasses, clover and small grain, peas, planting potatoes and fruits of every kind. These will shade the earth in summer and their rootlets act as ties to the soil in winter.

Shade induces gentle showers. These grasses, grains, &c., will extract food and richness from the atmosphere—from the soft showers and pearly dews—and their roots from the decomposing subsoil which deep plowing will enable them to reach. All the parts of the earth unshaded and exposed to the direct and continued rays of the sun have and would become sandy deserts. Let us learn from and imitate Nature.

After raising grasses and small grain, stock-raising becomes of value to a farmer. They change these into pork, milk, butter, cheese and beef, wool and mutton. In a word, they are machines by which he can extract from the bulky and raw material, the prepared and valuable portion; leaving the insoluble parts in the form of manure—bring everything into use at once.

5th. Since we must raise cotton, let it be done amidst a rotation of crops, and as much as can be, on land too level to wash when thrown up in ridges and deprived of rootlets.

6th. Let our farmers raise everything at home necessary for home consumption, which the soil will, either directly or indirectly, produce, and there are few things which it will not. This will give farmers an opportunity to rotate their crops; enrich, instead of wearing out their soil, and save the freight and carriage of the articles back and forth which they buy for home use. They will have less cotton for sale, it is true, but what they do have will be clear cash—not spent in expenses and buying the next year's support. It seems our farmers are in a whirl, "making more cotton to buy more negroes to make more cotton to buy more negroes," &c. They should make land (not negroes) the standard of value; ornament and cherish home as a patriotic and christian virtue; live there—not stay, as at a tavern—and cease this everlasting moving "Westward, ho!"

PUBLIUS.

Reclusa, Ark., June, 1859.

JUNE 1st, 1859.

DEAR SIR:—Enclosed I send you an article, suggested by reading the article commenced in your May and concluded

in your June number, on "The Cheapness of Lands at the South—its Causes and the Remedies." A subject fraught with the dearest interest of the South, and one, in my view, which cannot be too much agitated. Should you think the article worthy, give it a place in your valuable journal. It is longer than I should wish, but, owing to the extent of the subject and the many causes and remedies connected with it, I could not express my views in a less space.

I am not farming as a primary pursuit, but was raised on a farm in the South and love it better now than the strife and chicanery of Court. You will see by your list that I am a subscriber to the *Cultivator* and have been for some two years. Everything contained in it, even to the advertisements, is carefully read by not only myself, but by my wife also. No visitor is more welcome.

Very respectfully,

H.

HONEY BEES---WARTS ON FOWLS, &c.

EDITORS SOUTHERN CULTIVATOR—As the Honey Bee question has been agitated in your journal for the last number or two, I would like to ask a question or so, if found suitable for the *Cultivator*. I see, by reading in the Agricultural Report of the Patent Office for 1857, D. J. Browne says that the *oldest* queen bee leaves the old hive with the young swarm every time. If so, does a bee's wing grow out after being cut off? for I have cut off several wings in my life, and they have swarmed afterwards and always seem to do fine. More, the queen may be caught very often, if you see them commence, by standing at the old gum and watching the hole as they come out; for she is about the last. If not found, go to the place where they commence settling; for she will frequently light some distance from them and crawl along to the bunch, and as the workers find her out they will hold tight, with head down, to the thing they are on and fan with their wings—easily noticed by any one. If scissors in hand, you can very soon have the hive, what I call, *safe*.

One more item. A neighbor has lost a good many chickens by warts. Several instances where an old hen would take warts on her bill and eyes and then on her legs, and soon the whole brood of chickens would be in the same condition, and death always followed. He lost a great many in this way. They were fed and watered better than the common run. Both Shanghais and common chickens all fared alike.

A cause and remedy, from some of your correspondents, would oblige one and perhaps many more of your readers.

H. S. H.

Gaudaloupe Co., Texas, June, 1859.

SWEET GUM---TO DESTROY.

EDITORS SOUTHERN CULTIVATOR—Though but three years subscriber to your journal, I find myself, like the country lass with the gloves, "I do not know how folks do to get along" without it, and, as a matter of course, consider myself under obligations to contribute my mite of information when I can. You will please inform your inquirer of how to kill Sweet Gum trees, that if he will belt them about the 20th to the 25th of August he will not be bothered with many of them long. Occasionally one will survive until the second year, or even sometimes to the third season, but they will be few and far between.

I am, yours truly,
Cheneyville, La., June, 1859.

JONAH.

 A great many farmers trim up a little pet of a tree until it is nothing but a broom handle, and then complain that it does not do well.

SAND IN HORSES' INTESTINES.

EDITORS SOUTHERN CULTIVATOR—Can you or some kind subscriber propose, through the columns of your journal, a certain remedy for horses affected with sand in their intestines? We often lose horses thus affected. Various remedies have been recommended, but I cannot say that a horse has, as yet, been saved by them. After death I have examined several, and generally found in them the sand so compact that it was difficult to crumble it—in one instance after the death of a horse (poney) I saw a cake of sand 10 by 16 inches in diameter and almost as hard as a brick.

I have saved two horses by drenching with salts and oil, but believe the sand in them was not compact. The symptoms that I have observed are as follows: The horse at first, few days, a loss of appetite and dullness, afterwards frequent attempts to evacuate, with little or no success, before a final change; he frequently and suddenly drops down on his bended legs and belly, groans, rolls, and apparently relieved if he can remain lying on his back, then follows considerable swelling of the legs and nostrils.

A horse thus affected is often considered as being troubled with bots; but horses seldom die here with bots.

Very respectfully,

ST. JOHNS.

St. Augustine, Fla., June, 1859.

PRIVY ARRANGEMENTS—"NIGHT SOIL."

NEAR most human habitations a nuisance is tolerated, because it is deemed necessary, which, however, with a little pains, and at a trifling expense, might be avoided.

As this is not an attractive subject, I will state, as briefly as possible, my own method, and commend it to those who have not adopted a better one.

The building is, of course, located in the back yard; the rear standing flush with the fence that encloses the garden. Instead of digging and stoning up a pit or vault, raise the frame and a wall, a foot or eighteen inches from ground; or cheaper still, place it on square blocks at the corners, so as to side down to the ground on the three sides next to your yard, and if more space is desired under the floor, dig away the earth a few inches before placing the building on the foundation.

Next, construct of plank, a box of the depth of a foot or more, the corners halved and spiked together with large nails, or otherwise strongly made, and of dimensions to occupy the space beneath the floor. This box is mounted on four cast iron wheels or castors, two or three inches in diameter, which, with the proper fastenings, you will procure at a few shillings cost at the hardware store. For this to run on, lay down a couple of planks, extending out a few feet in the rear of the building, on which nail a strip of board outside the wheels to keep them from running off the track. The car furnished in this manner is easily drawn out, and pushed back to its place as occasion requires.

From some neighboring marsh or pond hole, when dry and light, draw a few loads of muck, or, for lack of this, any other earth, and pile in a heap near where the box is to be drawn out. Cover the bottom of the box with dry muck or earth, and your arrangement is complete, more convenient than a deep pit, and at less expense.

As often as necessary draw out the dirt car, shovel the contents on an Irish dirt barrow, wheel it off to a convenient place for a compost heap, dump it down; always using sufficient earth, lime, plaster, or something of the kind to keep everything covered that would be offensive to sight or smell. This, by the bye, should be one of the chores to be attended to, and not neglected, and if not un-

reasonably neglected, can be done by man or boy in five minutes time.

By this simple method a nuisance, often intolerable, is not only got rid of, but turned to valuable account.

M.,

[in Country Gentleman.]

FISH---THEIR CULTIVATION, &c.

"LAW sakes alive," says some Mrs. Partington, "here's a man that's going to tell us how to plant and raise fish in our gardens *jest* like other truck." No, good woman, I shall not tell you all this, yet I will tell hundreds and thousands of you how to raise your own fish. Cultivation means something more than plowing, harrowing and hoeing, and may well be applied to the raising of fish, and, perhaps, I cannot better instruct you in this art, than by describing what I lately saw right here in South Carolina.

During my late visit to Sumter, I was shown all over the plantation of my friend Freeman Hoyt, Esq., and here I met with a perfect model of a domestic fish-pond. Mr. Hoyt told me that the little stream of water running through his place, was the main thing that sold him the land. The branch ran through a low place of such a form, as to enable him, by a dam of some fifty yards long, to construct a pond of 700 feet in length, by 150 in width, with a depth varying from the shores, to 12 or 15 feet in the centre. This gives him a pond of over 2 1/2 acres where he could raise nothing else. One year ago, in the spring, he deposited in this pond eight good sized trout, and near three hundred thousand eggs, with a large amount of smaller sized fish, for the trout to feed upon, and he now has the water literally swarming with the finny tribe. His trout are now one year old, and I caught one while there that was over seven inches. Mr. Hoyt will not catch his trout until next year, and then I think he will almost be able to supply the town of Sumterville with fish. The water running from his dam passes through a sieve so that the fish cannot escape from the pond. A little below the dam is built a small two-story house, the lower story for bathing, while in the upper one is kept all the apparatus necessary for cultivating, feeding and taking the fish. All this convenience has been gotten up with a trifling expense, and will be, in the future, a large source of pleasure and profit to Mr. Hoyt and his family, and a perfect blessing to his neighborhood. We all eat too much flesh in this country, and should endeavor to substitute, for some of it, more fish and fowl.

There are hundreds of places in this State where just as good a pond as the one I have told of, could be built, and the owners not only well supplied with good fish right from the water, but they could derive a good revenue from their neighbors by selling them the proceeds of their pond. A learned doctor of England once said, "that a long life in this world merely learned a man how to live." I wonder how many lives it would take in South Carolina, to learn the people to live up to the privileges, that nature has bestowed upon them. Everything must succumb to cotton, if we eat nothing but hog and hominy. Will no other money pass but what is made by cotton, and must the country be thus sacrificed? Those that have the means and facilities must answer.

H * * *,

[in Lawrenceville (S. C.) Herald.]

TEXAS WOOL.—A traveller from Texas publishes a letter in the *Mobile (Ala.) Mercury*, in which he says that the steamer in which he took passage down Red river had 94 bales of wool, weighing 300 pounds each, and that the wool from the clip of one sheep farmer for the past year sold for \$16,000. He says that the town of Jefferson, on Caddo Lake, sold, last year, between 4,000 and 5,000 bales of wool, and expects, this year, to sell more.

FOWL MANURE.

No manure obtained by the farmers is as valuable as the manure from the poultry house. Of this there is no question, and yet we can hardly answer the question "in what way is it best to use it?" The manure is made only in small quantities, and it may be that, as a general thing, much of it is wasted. It may be thrown with other manure, muck and refuse on the compost heap, but our plan is to save it for *special* purposes, and we generally use it in the vegetable garden, where it is not only valuable, but exceedingly convenient. When dry, it may be sown with onion or other seeds in the drills, at planting time, and four or five quarts put into a barrel of rain water makes a most superb liquid manure for any beds of young plants that need stimulating. In this form we use it for our melons and cucumbers, as soon as they appear above ground, to put them out of the way of the "bugs," and on the beds of cabbage, cauliflower plants, &c., for the same purpose. Celery plants, after being set out in the trenches may be hurried up amazingly by being watered two or three times a week with this liquid food. If magnificent sweet corn is wanted, half a pint of the dry hen dung, finely scattered in each hill will give it, and no mistake. If you have been able to grow only hard, hot, wormy radishes, next spring sow the seed in very shallow drills, (not too early) in a warm, sheltered place, then cover the bed with a thin dressing of coal ashes, and water with the liquid hen manure each alternate night, and if the season is as favorable as ordinary, you will have no cause to repent the trial. A little charcoal dust is better than coal ashes.—*Rural New Yorker.*

JUDGE TANEY ON SLAVERY.—In the case of the slave Amy, decided a few days since, Chief Justice Taney has furnished a written decision, in which he asserts the following great legal principles touching the institution of slavery in the United States:

1. That slaves are recognised by the Constitution of the United States in the character of persons.
2. That slaves are represented in Congress, as persons.
3. That, as persons, they are, in many instances at least, subject to certain liabilities, and invested with the rights corresponding to those liabilities, in the same way that other persons are.
4. That among these liabilities are those which render them amenable to trial and punishment for crimes and misdemeanors; and among these rights is the right of legal protection against personal injury.
5. That the Constitution of the United States also recognises slaves as property.
6. "As property, the rights of owners are entitled to the protection of the law," i. e., the laws of the United States, enacted by Congress.

There are seven reasons why farmers are healthier than professional men, viz:

1. They work more and develop all the leading muscles of the body.
2. They take their exercise in the open air, and breathe a greater amount of oxygen.
3. Their food and drinks are commonly less adulterated and far more simple.
4. They do not overwork their brain as much as industrious professional men.
5. They take their sleep commonly during the hours of darkness, and do not try to turn day into night.
6. They are not so ambitious and do not wear themselves out so rapidly in the contest of rivalry.
7. Their pleasures are simple and less exhausting.

DUTIES OF A LADY IN HER HOUSEHOLD.

WITHOUT regularity, no house can be managed with any degree of economy or comfort. No mistress or head of a household, therefore, should trust her domestics with the care of the store rooms, closets, and kitchen, without keeping a careful supervision over each of them herself. The best hour for inspection, in regard to these matters, is immediately after breakfast. All the materials or stores, as well as the necessary directions, may then be given out. She should also see, for herself, that everything is made the best use of by those to whom she entrusts the culinary operations, and that nothing is left to the chances of disorder and waste.

No lady should ever regard herself above this routine of skillful house-care; for, however accomplished she may be, her domestic duties are of the first importance. Thus, in regard to the simple matter alone of the dinner table—its appointments, and the mode of conducting on such an occasion—the influence of a faithful attention to duty, on the part of the female head of the household affairs, is at once evident. Everything should not only be in its proper place, but have a place by itself. Clean table linen should only be given out after the soiled one has been returned to its appropriate place. Glass should be kept in a closet in the dining-room, and only that number of glasses given out that may be wanted.

Everything being thus at hand, and the utmost carefulness enforced, much trouble, and, in the course of a year, considerable loss, will be avoided. Punctuality in the management of all home affairs is also indispensable. The meals should always, unless unavoidable casualties intervene, be ready at the accustomed and expected hour. If the mistress is punctual, the domestics will also be so; and thus the mind of the husband will not be ruffled, and there will be no confusion and no bickerings, but harmony and a cheerful appreciation of every meal, followed by general relaxation and pleasant conversation.

These are not trifles, however they may appear to some. If the insolvency of thousands could be traced to its source, it would be found to have commenced with the non-performance of these household duties by the wife—or other female head of affairs—for, "without order there is no economy."

WOMAN'S TEMPER.—Above all things, let woman cultivate a sweet and amiable temper. It is this that makes home happy. The sweet temper of a wife makes the flowers that gem man's pathway. Man, perplexed and annoyed with the cares and the toils of a busy day, goes home and is soothed to rest by the music of kindly coined words. It is like sunshine glittering in the dark and stony places in the heart. Let it be cultivated; for husband and children are a thousand fold the happier for it. Women should strive to possess a calm, sweet temper; and if it should so happen that any man's eyes falls upon this, we would say that he should pray with all fervency for a *better* temper than he has. How some women can live with cross, crabbed, ugly men all their lives, and still be so much like angels, is to us one of the "hidden mysteries."—*Spirit of the Age.*

FIRST PEACHES.—The first peaches of the season were shipped by Mr. James Purvis, near Aiken, on the South Carolina Railroad, via Charleston, to New York. These peaches were shipped in boxes of about a bushel and a half, and were sold as follows:—Two boxes at \$15 each, four at \$12.50 each, and two at \$10 each, making an average of \$12.50 per box, or \$8.43 per bushel.—*Charleston Courier.*

Pope said, "I began where most people end, with a full conviction of the emptiness of all sorts of ambition and the unsatisfactory nature of all human pleasures."

We would call especial attention to the following letter from Hon. B. P. JOHNSON, the able Secretary of the New York State Agricultural Society. It is of peculiar significance and value at the present time, when the subject of improving our lands is beginning to receive the earnest attention of our people:

IMPROVED LAND AND INCREASED VALUE.

EDITORS SOUTHERN CULTIVATOR—I received yours of the 27th ult., in due time, and, perhaps, I cannot better answer your inquiries, as to the improvements made by farmers here and the increased value of lands from improvements made, than by giving you the statements of some individuals which have come before our Society, and are entirely reliable.

A farm, situate in this county, which, for fifty years, had been under a system of destructive cultivation, taking everything off and returning nothing to sustain the land, came into the possession of a farmer in 1845. The land was so exhausted that, for the first two years, little could be raised; but, by a judicious system of manuring, rotation of crops, &c., this farm, consisting of 185 1-2 acres, gave a gross income of \$4,852, and a net income, after deducting expenses of cultivation, of \$2,678 16, in 1851—six years from the time it was entered upon.

The method of improving this land (a sandy loam soil) was by plowing under green clover—plowing at least 8 inches deep—applying manure generally as a top dressing (twenty to thirty loads per acre) to grain crops. The manure, mainly made from the droppings of cattle and horses kept on the farm, averaging about 300 loads (of 30 bushels) per year. Lime and plaster, used plenty—stable manure and lime considered the best manure for this land. The increased fertility of this land was secured by judicious culture.

To show you what was the condition of the land when the farmer took possession of it, I give the statement of the former occupant:

"I occupied the farm 16 years previous to your purchase; the farm was all the time in market; I was a tenant at will, and had no incentive to improvement, so that the farm rather deteriorated under my management. *I farmed it with a view of getting the most of it at the least possible expense.* I paid one hundred dollars a year rent; some of the land was new when I went upon it and it paid me very well, but for the last few years the land was so worn down that I no longer considered it an object at the price I paid. With regard to the amount of sales of produce, I should think I must have sold about 400 dollars worth yearly. I do not think I left the farm any better off than when I came upon it 16 years before. I did not suppose the farm was capable of doing what I see you have made it do."

It will be seen that the reason this man did not accomplish anything was, that he had no inducement, as he thought to farm well because the landlord would have the benefit of the increase as well as himself, and so he labored for his board and lodging for 16 years—the best part of his life. There are multitudes of such men who are owners of land and pursue the same depleting system this man did, and then say farming don't pay. 'Tis true, and always will be, that such farming will never pay—it is but using land as if it was a plaything, and after a little time may be thrown away. It is proper to say, that this farm was advantageously situated as to market; but that was as good for the tenant, during his 16 years, as the owner after him. It does not militate against the certain success of the farmer by his pursuit, if he will avail himself of the means adapted to secure the result. Evidences are abundant that the fertility of the land cannot only be maintained, but increased in richness; and there is no

necessity of having this exhausting process continually going on.

Another case in the interior of the State—a farm redeemed from the forest. In 1839 the farmer commenced his operations in the wilderness—land purchased, probably, at not more than \$5 per acre. The forest had to be removed and the land brought under culture, which was a work of time. A plan of gradual improvement was adopted in clearing the land and preparing the soil, which has resulted in success. The hard crust underlaying the native soil was attacked year after year by plowing deeper each season, bringing it up to the influence of air and water, forming a deeper and more valuable soil. While crops, formerly of wheat, averaged 10 or 12 bushels; corn 20 to 25 bushels; now wheat (before the insect appeared) averaged 20 to 25 bushels, and corn full 60 bushels; and an equal advance in meadows—and this all accomplished by the labor of the farmer and his judicious management.

In January, 1857, this farm, of 60 acres, of which 20 acres is in woodland and 5 acres in buildings, highways, &c., leaving only 35 acres under culture, gave the following result :

Value of the stock, implements, &c., on hand, \$1,065; value of grain and other products sold, \$1,210; leaving, after all the expenses of the farm and family had been provided for, \$468 to the credit of this little farm.

During the period of its occupancy, and since the forest has been felled, it has been paid for, thoroughly drained, good and sufficient stone and other fences erected, weeds eradicated, neat and commodious buildings erected which are most attractive. And here the value of this land from its nominal price in 1839 (when it was bought) has been brought to its present condition by a careful and judicious management, ever keeping in view that it must, each year, be increased in its value for cropping—judicious rotation of crops so that no one crop should exhaust and run out the land.

This farm is now worth \$40 to \$60 per acre.

I could multiply these evidences, especially in our dairy districts, were it necessary. The system of *scourging the land* and exhausting its life blood and then abandoning it for little, and fleeing to the cheap lands at the West, there to repeat the same course of exhaustion, is being arrested, and the management of farm land is greatly improving and the occupation of the farm is giving as much real and substantial comfort and independence as any other pursuit. And it will continue to be more and more successful, as more skill and intelligence is enlisted in this pursuit.

I regret I could not answer your letter more fully and at an earlier day; but a pressure of engagements is the only reason. I shall be pleased to answer any inquiries that you may desire, as far as I can. I desire to do all the good I can to the great agricultural interest of our country—the foundation of our prosperity as a nation, the conservative element in our population, which will be proven in the hour of peril, should it ever come (which may God in his infinite mercy prevent).

I am most truly yours,

B. P. JOHNSON.

State Agricultural Rooms, Albany, N. Y., }
May 25, 1859. }

STRENGTH OF THE CAMEL.—The Mobile Advertiser says:

"A trial of strength was made with one of Machodo's camels yesterday afternoon. Two bales of cotton, weighing together about 1100 pounds, were lashed together and placed upon his back, with which he marched off apparently as unconcerned as though they were not there. This was not one of the large camels."

I LOVE THIS GLOWING SOUTHERN CLIME.

BY FRANK MYRTLE.

I love this glowing Southern clime,
With skies so mildly bright;
Where reigns one constant sweet spring time,
So full of fond delight;
Where flowers are blooming all the year,
As beautifully fair,
As if the floral queen had made
Her fragrant palace there.

I love the Southern songster's note,
The balmy zephyr's breath,
Where perfumed strains of music float,
From out the forest's depth;
Where blithesome hearts are warm and true
As ever breathed a prayer,
And where enchanted pleasures woo
The soul to linger there.

I love the Southern twilight hour,
It breathes a holy spell,
While musing 'neath the orange bower,
Or in some fairy dell;
I love its starry heavens by night,
Its dewy moonlit eves,
Where Luna's silvery beams of light,
Gleam through the orange leaves.

You speak to me of happy homes,
Far in the snowy North;
I know the heart where'er it roams,
Will love its native hearth;
But say, is not this Southern clime,
So beautifully fair,
More lovely in its sweet spring time
Than aught you cherish there?

[*Memphis Eagle & Enquirer.*]

HILL LANDS vs. SWAMP LANDS, &c.

EDITORS SOUTHERN CULTIVATOR—I have just received a letter from a planter in the hills, asking my opinion as to whether it would pay him to sell his hill place and buy land in the "swamp," or low lands of Mississippi or Louisiana. This is a subject upon which I have been reflecting for some time past; and since the imprisoned waters of the Mississippi river have determined to be free and spread itself over this fine country, I have determined to give you an article on the subject.

The lamented S. S. Prentice said that the Maker of heaven and earth had given known laws to everything but the Mississippi river, and he just created that and told it to *rip*. We may doubt the remark of Prentice, but there is one thing about which there can be no doubt, and that is, that the Mississippi river will not be governed by the *levee laws*. Every time that the river gets to within a foot of its present height it bursts through the levee somewhere, and the country is flooded.

The levee system *may*, at some future time, be effective, but nothing is more plain than the fact that it has not answered the purpose in the past. The present flood will sweep away from Madison Parish, La., enough money to make the same area of land in the hills a garden spot. And, to say nothing of the immense loss by overflows in this country, every low land plantation in the Mississippi Valley requires enough money and labor expended upon it to make it fit to cultivate, in the way of ditching and leveeing, to make a hill place of the same size, with a soil of ordinary capacity, if put upon it, in the way of composting, subsoiling, hill-side ditching and horizontalizing to make it a No. 1, 10 *bale to the hand place*. I speak

from practical experience, but who will believe it? "Ho, westward," and "still they come," will be the cry until the last oak in the western forest will fall before the ruthless axe. The gullied hills on one side, and the "fresh lands" on the other will keep the tide of emigration afloat until the South becomes a desert waste. And then, and not until then will our children's children *commence*, alas! *commence*!! to study agricultural science, and to improve the old, red hills, *in order to live*. There is neither poetry or romance in this. It is the truth and nothing but the truth. Look at what *has* been done, and you will see what *will* be done. Ask a planter who advertises his hill place for sale, why he wishes to sell and the reply will be, "oh, my hills are washing away, and my land is wearing out and I want to get to a fresh country."

Yes, to wear that out. As if there was no way to save his hills and improve his land. The prevailing opinion is and has been, that it would pay to improve the hills; and such people never get convinced that they are wrong until they sell the old place for a song, leave their father's grave in the hands of strangers, part with old friends forever, and childhood's happy walks, leave the cool spring of water and the old orchard, and take up their line of march for the far off west to live amongst strangers, drink bad water, improve a new home, and wear it out, of course. Then the "scales fall from their eyes."

Now, my dear friends, your inquiry is answered. You have my opinion for what it is worth.

Yours, &c., G. D. HARMON.

Milliken's Bend, La., June, 1859.

RENOVATION OF LAND---PEAS, &c.

EDITORS SOUTHERN CULTIVATOR—After hearing and reading so much about the exhaustion of land by improper cultivation, I have concluded to "take time by the forelock" and not allow my new land to be worn out and then apply a system of renovation, but apply it *ab initio* and continue the application yearly, in consequence of which my new land instead of diminishing every year, will improve.

This season I intend to plant regularly in every row, in some old land, the common pea, and my object now in writing is to ascertain the most expedient plan of appropriating the pea to the land.

The following method is, I think, a good one, notwithstanding I would like to see your views on the subject, and without you convince me of its inutility I will try it. I intend first to plant the peas simultaneously with the last plowing of the corn. Immediately after the corn is harvested I will turn in my hogs and let them remain about two weeks, for two reasons, viz:

1st. They will, in search of the corn and peas left in the field, loosen the pea vines and tear them sufficiently to enable the plow to pass easily through them and cover them entirely with two furrows. Thus everything growing in the field, before vegetation is checked by the frost, is turned under and thrown in a state of decomposition for the renovation of the soil.

2nd. The hogs are very much benefited by the peas and corn left in the field, and without doing any detriment to the land during the short time of two weeks.

R. N. Y. NEWPORT.

June, 1859.

[The plan of our correspondent is a good one; but if the peas were sown thickly broadcast—sprinkled with lime or plaster, just at the period of blooming, and then turned deeply under, the benefit to the land would be much greater. Still, if all will only do as he proposes, there will soon be a marked improvement in cultivated lands throughout the South.—Eds.]

COTTAGE SONG.

BY JOHN S. ADAMS.

We've a cottage clothed with roses
Near a wood
Where the singing birds of summer
Nest and brood:
There in early spring the daisies
Gem the sod,
Looking up to heavn above them,
And to God.

There in holy calm we worship
One above,
Through his works that all around us
Speak his love;
Read we there his will in every
Rock and tree,
While his blessings fall upon us
Rich and free.

Beautiful the morning sunlight
Cometh there,
Crowning Nature at her early
Morning prayer;
And at evening, when the twilight
Closeth round,
Still, devoutly at her worship,
Is she found.

We are not alone, for angels
Come and go,
Walking often through our cottage
To and fro;
Promising to guide and guard us
With their love,
Till we go to live among them,
Up above.

Simple life is ours—we follow
Nature's way,
Learning of her truthful lessons
Day by day;
Striving to fulfil our mission,—
Doing good:
Living happy in our cottage
Near the wood.

[Exchange.]

PICKING COTTON BY STEAM.—About the first of last month, John Griffin of Louisville, Kentucky, obtained a patent for a "Cotton Harvester" that is to be worked by a steam engine. We believe the fingers of the darkey in picking cotton will beat all the steam apparatus that can be invented for the next fifty years. The *Scientific American*, in speaking of it, has the following:

The inventor connects a flexible tube with a cylinder provided with a perforated plate and connected with a steam boiler, so that a vacuum may be produced within the cylinder and the cotton picked from the bolls on the standing stalks by atmospheric pressure, the tubes being presented to the cotton by suitable attendants. In carrying out this invention the inventor designs to have the cylinder above mentioned connected with the boiler of a traction engine, in order to facilitate the transporting of the machine and the moving of it from place to place, or from row to row, in course of its operations. He also intends to use several cylinders and a plurality of tubes, so that many hands may be employed and a number of rows of cotton may be harvested simultaneously.

CELERY CULTURE.

SOME seven year ago there happened to be an old saw-pit near the garden where I was employed. In the bottom of the pit there was a foot and a half of saw-dust, which had lain there for some years. I took this, and equal quantities of good rotten manure and fresh loam to form a compost, both for pricking out and for trenches. I put about half the quantity I intended to use in the trenches at planting time. I then planted and allowed the plants a month to grow, and then added the other half.

I gave the plants a dose of weak liquid manure from the time of pricking out to the second earthing. I was so well satisfied with the result that I endeavored to get the same materials for my main crop.

I have tried numerous plans for blanching, and the most effectual, I consider, is to get some clean, fresh saw-dust, and to put a handful into the heart of each plant when they earthed nine inches high, and repeat it every time of earthing. Snails and other things do not go down inside when they are so treated, and the heart of the plant can push itself up, the material being light. It is rarely that I find a rotten heart or hollow sticks in my crop.

Remarks.—All thoroughly rotten wood, especially oak, hickory, chestnut and other hard and non-resinous wood is well known to be an excellent constituent of a compost for celery, cabbages, and many other vegetables, and should be used whenever it can be had. Rotten pine wood should be avoided.—*Am. Cotton Planter and Soil.*

To KILL TICKS ON SHEEP.—Bountiful feeding and comfortable shelter is a great preventive, but it will not eradicate them after they have a permanent settlement, and it is an injury to the sheep to wash them in tobacco water in cold weather, and at this season of the year, the wool is too long for that operation; but Scotch snuff applied to the skin where the ticks are located, will make them decamp immediately. Separate the wool carefully, lengthwise of the sheep, take the snuff with the thumb and fingers and apply it to the skin closing the wool after it. If the ticks are all over the body, apply two or three rows on each side, (avoiding the back,) from head to tail; but if they are only located on particular parts, apply it freely there, and they will soon decamp. If the ticks are very plenty, take time and do the work thoroughly.

When sheep are much infected with ticks in the spring, about two weeks after shearing they will leave the old sheep and go upon the lambs, then dip the lambs in tobacco water, and you get clear of the nuisance for a time.

A DEVON MILKER.—*Messrs. Editors:*—Having seen it stated that the Devons are not good milkers, I beg leave through your columns to state the yield of my full-blooded Devon heifer. Said heifer is four years old this spring, and dropped her first calf the 13th of February; she has been kept on interval hay, with one quart of oat and pea meal per day, and gave about thirteen quarts of milk per day, which in one week yielded 11 1-4 pounds of nice butter.

Perhaps it may be said that all Devons will not do so well; but will *all* of any other breed do as well under the same circumstances? Respectfully yours,

CHAUNCEY COCHRANE.

East Corinth, May 2d.

[Maine Farmer.]

CHARCOAL ABOUT FRUIT TREES.—Mr. J. N. Smith, of Chimney point, Vt., wrote in 1854, that he had used a shovelful about the roots of his fruit trees, with the following results: "It keeps away the grass, prevents the borer entering the bark, besides being a most excellent manure."

CROPS WHICH ENRICH THE SOIL.

ONE of the great needs of American agriculture is the introduction and extensive cultivation of such plants as enrich rather than impoverish the soil. So far as ascertained the leguminous plants—such as peas, beans, and clover—belong to this class. So also do turnips, and probably other cruciferous plants, when not raised for seed. On the other hand the cerealia—including wheat, barley, oats, rye, maize, sugar cane, and the grasses proper, such as timothy, red-top, rye grass, &c.—impoverish the soil. They all have starchy seeds and glassy stems. They take from the soil, from rains, dews, and the atmosphere, more ammonia than they contain when grown. On the other hand, the leguminous plants, turnips, &c., retain the ammonia; and when the plants are plowed in or consumed on the land by animals they increase the supply of ammonia in the soil. All crops grown for feeding animals on a wheat farm, or for plowing under as a manure, should belong to the latter class as much as possible.

The time is come in this section and in the older States when the great aim of the farmer must be to enrich the soil. In determining which crop to raise for the purpose of feeding on the farm, we must not merely ask the simple question, What crop will afford the most nutritious matter, but which will be ultimately the most profitable, taking into consideration, its effects on the soil, the amount of nutritious food, and the value of the manure made by its consumption on the farm? Where the object is to enrich the farm it is a great waste of vegetable force to grow barley, oats, rye, corn, and the grasses for the purpose of feeding animals on the farm. We should rather grow plants of a lower organization—plants which require less of that kind of food best suited to the growth of plants used as food for man. All will admit that to grow wheat to be fed to animals for the purpose of enriching the soil as the primary object would be a wasteful practice; and we believe the growth of the plants named for this object is wasteful also, though perhaps in a less degree.

If we can direct the attention of farmers to this subject we believe many useful plants will soon be introduced which are now little known or cultivated in this country. For this purpose we will describe some of the most useful plants which experience indicates as belonging to that class of crops which enrich the soil.

WHITE LUPINE.—This plant has been used in Southern Europe for plowing in as a manure, since the days of Columella. We have frequently alluded to it as pre-eminently worthy of trial on the poor sandy soils of the Atlantic slope, especially where the climate is mild. It derives its name from *lupus*, a wolf, in allusion to its voracious qualities. It strikes its tap-roots deep in the soil, and it will flourish where many other plants would starve. It is of very rapid growth, produces a large quantity of alkalies. It is rarely or never injured by drought or insects, and is admirably adapted for enriching unfruitful sandy soils; while its strong stems and roots open and ameliorate, as well as enrich heavy, tenacious clays. M. Vilmorin, of Paris, says it is sown in that vicinity about the middle of April, after all danger from frost is past. He says “the green manure yielded by this plant is excellent. The seeds, soaked in water, form a good cattle food, and the young plant is readily eaten by sheep.” White lupins are now quoted in the large seedsmen’s list of England and France, and we hope they will be introduced into this country.

SPURRY, (*Spergula arvensis*)—No plant has been more lauded for enriching sandy soils than Spurry. Von Vogt states that by its use “worst shifting sands may be made to yield remunerative crops of rye, that the green manuring every other year not only nourishes sufficiently

the alternate crops of rye, but gradually enriches the soil, and that it increases the effect of any other manure that may subsequently be put on.” He adds, also, that “spurry produces often as much improvement if eaten off by cattle as if plowed in; and that, when fed upon this plant, either green or in the state of hay, cows not only give more milk, but of a richer quality.” The best seed comes from Riga. It can be sown any time during the spring or summer. It is often sown after wheat or potatoes, and plowed in the following spring. It is sown broadcast at the rate of fifteen pounds per acre. It grows with great rapidity, and two or three crops may be obtained in a season. Spurry and the white lupine are both annuals.

BIRD’S-FOOT TREFOIL (*Lotus corniculatus*) is a prostrate perennial common on open grassy pastures and dry places. It is a leguminous plant, equally nutritious as clover, and is instantly eaten down whenever cattle have access to it. It is one of the commonly-cultivated “artificial grasses” of England, and is always recommended as worthy a place in all mixtures for permanent pastures, and especially for lawns, orchards, and shady places.

MEDICAGO LUPULINA is another leguminous plant, a fibrous-rooted perennial very common in dry pastures, especially if of good loamy quality, where it forms, with other plants, a thick sward. The pods are short, black, twisted, and arrayed in oblong heads. It is not equal in nutritious qualities perhaps to red clover, but is valuable on dry poor soils, where, however, it is apt to run out in a few years.

LUCERNE, (*Medicago sativa*).—This is a well-known plant, which has been more or less cultivated in this country for many years. It requires very rich land, and deep and thorough cultivation. It should be planted in rows, and hand-hoed or forked between several times during the first and second years. It does not attain its maximum productiveness till the third year. On these accounts it is not likely to be very generally introduced into a country where land is cheap and labor dear. In the neighborhood of large cities, however, it is a useful crop, especially for feeding to milch cows in summer. It can be cut three times a year, yielding a good crop each time, if the soil is sufficiently rich.

VETCH OR TARE, (*Vicia sativa*).—In England this is an exceedingly valuable plant, especially on heavy soils. It can be sown in the fall or in the spring—the latter generally yielding the heaviest crop, though the former is the earliest. Vetches are principally used as a green food for horses. An acre of good vetches, fed in the yard or stable, will keep more horses than six acres of the best pasture. They succeed best in a wet season, and on this account are not likely to do well in this country, though we have seen them in Canada and have been informed that they succeed well and are very useful. A good “smothering” crop of vetches, cut before they go to seed, are nearly as good to precede wheat as a summer-fallow. Morton’s Cyclopaedia of Agriculture says:—“Sheep fatten faster upon this (green vetches) than on any other herbage, which occasions its constant use by ram-breeders. Horses improve more rapidly upon it than on clover or grasses. Horned cattle thrive surprisingly upon this fodder. Cows yield more butter from the tare than from other provender; pigs eat it voraciously and prosper without farinaceous food.” The experiments of Mr. Lawes on vetches prove them an enriching rather than impoverishing crop.—*Genesee Farmer*.

[As a speedy and certain renovator of exhausted soils, we have in the South, the invaluable Cow Pea; which is equal, if not superior to any of the foregoing, for our especial purposes —Ens.]

SAW GINS, &c.

EDITORS SOUTHERN CULTIVATOR—On page 183, our mutual friend, R. C., calls for information on the Saw Gin. I have tested upwards of a few and am willing to give my say so. A few years since I bought what I supposed to be the best stand for fine cotton; E. Carm & Co. So slow that I had either to add to gin house, cotton pens, or to get another. Bought Taylor's stand, of Columbus, Ga.; I was afraid it would burn up my gin house, such a rattling thing, such cotton, rat-gnawing looking thing, I could get nothing rare for it, agent could not, money safe. I threw it aside and got Huves', of Clinton, Miss.; I ginned six bales per day. Commission Merchants said it was as good as Carm cotton and sold as well. Messrs. Gullett, Gladney & Co., knew of my experimenting; I bought a stand of theirs, put it up and that day I left for New Orleans, took samples of both stands, from the same field, the same day's ginning, and in forty hours had them on the sales table for examination. My Commission Merchant pronounced one sample, or half of it, better than the other, and said if an early picking of cotton, when cotton would rule fair, that the difference from ginning would be largely over it.

I have now a new stand, on the cylinder principle, and expect another for trial, sent to me. I have never tried one, never saw but one run, and I am free to say, the day is not far distant when the Cylinder stands must drive all others out of use. The Gullett stand can be bought and worn out before this day may come. Of it, I can say it is an improvement; I, of course, judge from the one presented to me, and from the report of my Commission Merchant, Mr. Carroll, of the house of Carroll, Hoy & Co., a better Merchant, in my humble opinion, not living in New Orleans; and, by the way, a gentleman, a broker, I think, was present and aided him in judging thereof. I said to Mr. C., I was very anxious to have the fairest and most critical examination. I was present and think a half an hour at least was devoted to the examination.

The rapidity of ginning depends upon speed. I did then turn out some five bales and think on clean cotton, well prepared for ginning, that I can turn out 8 bales per day, each bale weighing four hundred pounds—of course I give motion.

I have been minute in detail, that friend C. could fully appreciate, and, by the way, glad of the chance to take a broad sweep at that Taylor stand, some \$200 worse than thrown away. Never before or since did I see such a rattling affair nor a worse sample.

Yours with respect,
M. W. PHILIPS.

Eudards, Miss., June, 1859.

HANCOCK COUNTY FARMING.

EDITORS SOUTHERN CULTIVATOR—In the July number of your best of Agricultural papers, the *Southern Cultivator*, I find a communication from Lexington, Ga., signed F. J. R., calling on the farmers of Hancock County to give to the public, through your monthly, our plan or mode of operation, in bringing about "such astonishing results" in the production of Corn and Cotton. David Dickson, Col. Lewis and myself are particularly called on.

I will answer for myself. I am a very poor farmer; there are, perhaps, fifty farmers in Hancock county that make more corn and cotton, per hand, than I do.

In my annual publications I have never claimed to have made more than my neighbors. The sole object of those annual statements, were intended to get farmers to keep an account of farming profits, or, at least, to give their farms credit for all that they were entitled to, feeling assured, if they would do so, that farmers would not be

such grumbler as they are found to be, and would feel assured that the farm was the surest road to wealth, happiness and independence.

If any one will take the trouble to examine my reports made for the last four years, they will find that my crops are not large, for the capital employed (not larger, perhaps, than a majority of farmers in any of the old settled counties of Georgia); yet my net profits have been just what I have stated, and much less than a good number of farmers that I could name in Hancock.

Mr. Dickson is regarded as one of our best farmers, making larger profits than I have published to the world, and, I hope, will give to the public his plan of operations. In connection with him I would name Thomas J. Dickson, James M. Harris, T. J. Smith, Wm. B. Hunt, Joseph B. Gouder, W. W. Simpson, Thomas Whaley, B. T. Harris, J. S. Whitten, John W. Allen, James Bass, Geo. S. Rives, and could enumerate twenty more, as being considered our best farmers. The most of these gentlemen reside on their farms, and could give F. J. R. the information sought in his communication.

Yours, &c.,
Thos. M. TURNER.
Sparta, July, 1859.

SPARKLING OR CHAMPAGNE WINE.

TRANSLATED FOR THE "CULTIVATOR," FROM THE FRENCH OF BATILLIAT, BY V. LATASTE.

SPARKLING or Champagne Wine is best made from black grapes. These are gathered in the morning while yet wet with dew; none others should be used save those that are thoroughly ripe and sound. Let them be subjected to the press and there remain till the running has nearly ceased, the pressure is then taken off, the mass cut up, re-assembled, and again put to the press, but at this time the pressing must be done quickly, so as not to allow the coloring matter sufficient time to stain or color the wine. The must, or new wine, is next conveyed to the caves or tubs. By continuing the pressing, a must slightly colored is obtained, which makes a lively, red, sparkling, or common wine. The wine should remain in the vessels from twenty-four to thirty hours, during which time it becomes clear: it is then, with great care, transferred to a new cask and placed in a cool place, which will prevent the fermentation from being too active. The cask must be kept full to the top, so that all impurities may escape in the form of foam. When the wine is put into this second vessel it is customary to add to it one quart of the first quality of cognac brandy to each hundred quarts of wine.

When the fermentation has finally ceased the cask is to be filled and firmly stopped.

From the 15th to the 30th of December, selecting a clear and dry time, the wine is to be drawn off and put into a new cask, which must previously have undergone the operation of smoking with sulphur*; it is also at this time clarified, by using two and a half ounces of isinglass to each two hundred bottles of wine, and afterwards allowed to repose for about one month.

At the end of February it undergoes another clarification similar to the first; then let it remain till the end of March. At that time it is again drawn off, and a syrup added made of ten pounds of rock candy, dissolved in white wine and pale brandy, to each two hundred bottles; it is then to be bottled. Select the best of stopples—drive

*The match used for this operation is made by passing strips of cotton rag, about one and a half inch in width, through melted sulphur; when cold, it is ready for use. Put on the end of a hooked wire about one square of this; light and insert at the bung hole and let it burn.

them home firmly with a wooden mallet, and secure them in place with annealed wire.

The selection of the bottles is a matter of importance—they should be of an equal thickness and very strong—the neck being narrow and of a conical form, in order that the corks may easily enter, and be sharply expelled by the expansion of gas.

As, at the time of bottling, the fermentation had not entirely been completed, it continues, and forms in the bottle a carbonic acid gas, whose expansive power was sufficient to break the bottles at the rate of twenty-five per cent, but now that they are manufactured with more care it does not exceed ten—store away the bottles in a cool cellar in layers, with laths between.

After the wine has been bottled from eight to ten months, a deposit will have formed, which would destroy its clearness if not removed, which is to be done in the following manner: Take each bottle, handling it with great care, holding the mouth downward, give it a slight blow; this will detach the deposit from the side of the bottle, when it will slide down and settle on the cork. Then, having first prepared boards, with holes of a proper size ready bored, place the bottles on these, with their bottoms upwards, and in that position let them remain for fifteen or twenty days. At the end of that time proceed to take off the wire and carefully withdraw the cork and remove the deposit, and with it a small portion of the wine, which must, however, be immediately replaced with more. Replace the corks and secure them with hempen twine and wire. This last operation demands much practice and dexterity.

It is known that Champagne Wine loses its sparkling qualities if the bottles are permitted to stand up for even so short a time as twenty-four hours; hence the proprietor will be careful that they are kept continually in a lying position.

BUCKEYE POISONOUS---QUINSEY IN HOGS--- Unsmoked Meat, &c.

EDITORS SOUTHERN CULTIVATOR—In reply to R. S. W., of Crawfordville, Ga. (June number, page 178) I will say that I have lost several cows from eating the Buckeye. The only remedy I have tried, to do any good, was salt and sulphur; keep the diseased cows in a dry lot and do not let them have any water during the time of giving, and for a day or two after giving the salt and sulphur, or they will be as badly affected as at first. I have tried this for several years and have not lost a cow with the above treatment. I have tried lard, soft soap, and other remedies, but always lost the cow until I tried the salt and sulphur.

I believe cows fed on cotton seed will not be affected by eating Buckeyes. Several years since I fed cotton seed for some time during the Buckeye season, and had no cows affected by them (although they had free access to Buckeyes) until after the cotton seed gave out, and I then lost two or three cows.

You can publish as much of the above as you may think proper for the benefit of R. S. W., or any others who may wish to know; and I would be glad to know if any of your correspondents are acquainted with any other remedy.

Can you or any of your correspondents give, through the *Cultivator*, a remedy for Quinsey in Hogs? I have lost a number of hogs this spring by this disease or something similar. I have tried sulphur, copperas, and tarred corn to no purpose.

I would also like to know B. F. T.'s method of curing meat without smoking (June number *Cultivator*, page 174). Will he be kind enough to give it through the *Cultivator*.

Very respectfully, W. E. A.

Elkton, Tenn., June, 1859.

SHEEP-KILLING DOGS---TAX THEM!

EDITORS SOUTHERN CULTIVATOR—It was a very true remark of that able Statesman, Daniel Webster, that “some things had to be talked into existence.” This remark was made in relation to the National Monument.

But we think it applicable to many other things, and permit us to talk a little through your able journal to the farmers of Georgia.

Protection from the depredations of sheep-killing dogs is all the State of Georgia lacks to make it prominent in the Union in the production of wool. Nature has done everything necessary for the development of this branch of husbandry—mild climate, an abundance of hill country—where the domestic grasses flourish. The greatest obstacle in the way of this primitive and most pleasant occupation is that worse than worthless creature—the Dog.

The little State of Vermont produces more wool than the “Empire State of Georgia,” from the fact that every man in the State of Vermont that owns more than one dog pays a tax on them, which dog-tax is appropriated to the paying for sheep that are killed by dogs.

The consequence is, every farmer can afford to keep a flock, knowing that if they are killed he will get paid for them.

Now, let us raise such a buzz about the ears of the next Legislature (in the shape of petitions) that they cannot refuse to pass a bill taxing every dog over one in the family twenty-five cents, and more if that is not sufficient to pay a fair price for all the sheep killed by these canine marauders. And in less than ten years we will export wool as well as cotton.

If a dog is not worth 25 cents a year he is not worth the keeping.

But, as superstition says it is bad luck to kill dogs and cats, hundreds are allowed to roam the country over that would be killed if the owner had to pay for their poll.

Yours, &c.,

THOS. G. PARK.

Rossville, Walker Co., Ga., 1859.

THE JERUSALEM ARTICHOKE.

EDITORS SOUTHERN CULTIVATOR—No mistaking, no exaggeration of the yield. Two kinds the most productive, small, long and slim; the other with longer and more irregular tubers, tops vary in same way, are shorter and slimmer, the other longer and coarser.

I had six acres of them growing at once. I discontinued growing them for two reasons:

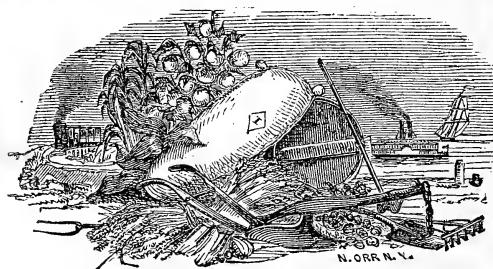
The first, like the seven fat kine that ate up the seven lean kine, cotton ate up the artichoke.

The second reason, I have about a half an acre in a field of cotton, planted them for seed; the next year, the seed renewed and planted, the patch could be seen to a line, all year; the cotton made neither weed, leaf, or fruit within 50 feet. I was alarmed at its disposition to eat up my land, and I quit the thing.

No doubt, the artichoke will pay for high manuring. I have seen enough to satisfy me, if on rich land, rows 3 feet apart—tubers dropped every 2 feet apart—that the tubers cover the whole earth, and never can send a grubbing hoe in the earth, middles or elsewhere, without finding tubers. I have known a hill dug and from that an estimate made, I forgot now the figures, but feel certain it was over 1000 bushels. I grew them for years. The larger kind, if dressed for the table with cream and butter, makes an excellent imitation of an Irish potato. Hogs eat them next to sweet potatoes. I do not regard them as fattening, but they will keep hogs well and growing, equal, if not better than green oats.

T. N.

June, 1^o59.



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., No. 8::: AUGUST, 1859.

THE SOUTHERN CULTIVATOR AND “SOUTH COUNTRYMAN.”

THE Proprietor of the *Southern Cultivator* takes pleasure in announcing to his friends, that he has just completed an arrangement with Rev. C. W. HOWARD, late Editor of *The South Countryman*, by which that paper is merged in *The Southern Cultivator*, and its list of subscribers transferred to this journal. All subscribers to *The South Countryman* will be supplied with *The Southern Cultivator* during the present year, and a satisfactory arrangement will be made by Mr. HOWARD with those gentlemen who have paid for both papers.

The readers of the *Cultivator* will also be gratified to learn that Mr. HOWARD will hereafter be associated with Mr. REDMOND in the Editorial Department of this journal; and that it is the determination of both Editors and Publisher to produce a Southern Agricultural Monthly of unrivalled interest and value.

It is the intention of Mr. HOWARD to spend a portion of his time travelling, with the view of Lecturing on Agricultural topics, canvassing for subscribers, &c., and we bespeak for him, in all places, a cordial reception.

THE “SOUTH COUNTRYMAN.”

THE undersigned, acting with the advice of friends, has been convinced that the interest of Agriculture would be best answered by the union of the two journals—the *Southern Cultivator* & *South Countryman*. This union has been satisfactorily effected. As Associate Editor of the *Cultivator*, I shall devote to it the same interest previously felt by me in the success of the *South Countryman*. Believing that the diffusion of Agricultural intelligence is intimately connected with the prosperity of Agriculture, I venture to ask that those friends who warmly sustained the *South Countryman* will cordially transfer their interest to the *Southern Cultivator*. There are some persons who were subscribers to both papers. In these cases, it will be considered that there has been an advance payment for the *Cultivator* for the year 1860, and the *Culti-*

vator will be sent them for that year without additional charge. Or, if this arrangement be not satisfactory in such cases, the subscriptions to the *South Countryman* will be refunded.

C. W. HOWARD.

Kingston, Ga., June 30, 1859.

THE foregoing sufficiently explains the very important arrangement which we have recently made with our friend, Rev. C. W. HOWARD, and places that gentleman fully in communication with our readers—to many of whom (in Georgia especially) he is already well and most favorably known. In introducing him to our more distant subscribers and friends, we need only say that our new associate is a native Georgian, who, to a life-long familiarity with practical Southern Agriculture, has added the most extensive reading, study, and travel in foreign countries—that he resides upon a grazing and stock-raising farm in Cherokee Georgia—that he has devoted especial attention to the culture of the Grasses, the use of Lime as a fertilizer, the Renovation of Poor Lands, the raising of Improved Stock, &c., &c., and that, in our humble opinion, as an Agricultural writer or speaker, he has no superior in the South. The reader who has carefully perused and studied Mr. HOWARD’s papers heretofore published in the *Cultivator*,* will need no assurance of the ability and zeal which he brings to his favorite field of labor; and we trust that the union of our forces will greatly improve our journal, and more efficiently aid in the advancement of Agriculture and Horticulture in the South.

D. R.

MARTIN’S FARM SCHOOL.

We have lately enjoyed the privilege of attending the examination of the pupils of this Institution, at Montpelier, Ga. To say that we were gratified, hardly expresses our meaning. This school now consists of twenty-eight boys, the sons of gentlemen from different sections of the State. The instructors are the principal, the Rev. Mr. MARTIN, and Dr. LOOMIS, who has charge of the department of natural sciences. No manual labor is performed by the pupils, but the whole spirit of the Institution is eminently practical, particularly as it relates to subjects of interest in plantation life. We strongly commend this Institution to the attention of planters and others who have sons to be sent from home for their education. The healthfulness of the spot, its retired character, its exemption from local temptations to evil, the excellent influence of the principal and his co-adjutor, and the extent and thoroughness of the course of study, render it an admirable Institution.

H.

☞ The absence of the resident Editor, (D. REDMOND) at the North, for a few weeks past, will account for several unanswered letters, which will be attended to immediately on his return.

* “An Essay on Grasses,” (February and March numbers, 1858); “The Low Price of Land at the South,” &c., (May and June numbers, 1859, &c., &c.)

**GRASSES FOR THE SOUTH---REPLY TO
Inquiries.**

T. E. CLARKE, St. Andrews' Bay Florida. The grass you sent is new to us. From your description, it is worthy of careful trial. Will you be kind enough to forward to the Associate Editor of this journal, at Kingston, Cass County, Ga., a few of the seed?

S. J. H., LaGrange, Texas. The grass seeds have been received and will be sowed with care. It is to be hoped that you will not be diverted from your purpose of collecting the seeds of the natural grasses in your region, which promise to be of value. Great good to the country may result from such inquiries. We sincerely trust that they may become more general. Our climate enables us to pasture stock during a large portion of the winter. That which we most need is grass growing freely during that period and of a permanent character. Annuals are of but little comparative value. Even perennial grasses differ greatly in their ability to stand "the tooth and the hoof." We shall arrive at safe conclusions as to this subject only by patient and careful experiment.

ORZAN, Hempstead County, Arkansas. Herd's Grass succeeds best on moist land—it will grow almost in running water. It is not a valuable grass on upland. Red Clover will certainly succeed on such land as you describe. If liable to be burned out in the summer, it must not be pastured so heavily as to prevent a good coat being left upon it, and the stock should be taken off during the prevalence of intense heat or protracted drought. A valuable pasture of the artificial grasses should be treated precisely as we treat a Barley or Rye pasture. Every farmer knows what that means. Herd's Grass is easily destroyed by the plow. The native Red Clover, of which you speak, is a worthless plant, if it be the same found in Georgia. For your permanent pasture, it will be best to sow a great variety of seeds; Blue Grass, Orchard Grass, Red and White Clover make an excellent mixture, and in the following proportions: Blue Grass, four quarts; Orchard Grass, half bushel; Red Clover four quarts, and same of White Clover. The Orchard Grass and Red Clover grow quickly, but neither of them are permanent except by re-seeding themselves—the Blue Grass and White Clover will, in the end, take full possession of the ground. Look to your native grasses. It is very probable that you may find some one that will answer better than any of those brought from more Northern regions.

J. W., Van's Valley. There are a number of grasses which pass under the general name of Muskeet. The grass enclosed in your letter is one of them. We have the same grass in cultivation, and do not value it highly either as a hay or pasture grass. It is too light. Have you tried Timothy on your red upland? It used to be thought that Timothy should be confined to low grounds. A gentleman who has been successful with the grasses near Atlanta, prefers Timothy to Orchard Grass. His land is composed of worn hill sides, originally thin, which he plows very deep, manures for wheat, sows Timothy and Red Clover with Red Wheat, and in the spring applies Plaster. In looking over Loudon's

Encyclopædia of Agriculture, we find it stated by the eminent author that this grass (Timothy) was introduced by and took its name from "TIMOTHY HUDSON, about 1780, who brought it from Carolina, where it was in great repute." The small experiments made by us with Timothy on upland have been successful. On rich bottom land, not too wet, when sowed alone, it is greatly superior to Herd's Grass.

J. R. E., Georgiana, Ga. The best meadows in this country are composed of the following kinds of grass: Timothy, Herd's Grass, and White Clover. This mixture gives a cutting down to the ground. It is best to inter Red Clover with it; but this plant will disappear by constant mowing, as it is a biennial.

G. W. R., Walker Co., Ga. Red Clover will not grow well on the kind of land you describe, in its present condition. It has the "dropsy." You must tap it. It's being so wet in winter, and so very hard and dry in summer, shows that it needs draining. The digestion of the food of plants will not go on any better in a diseased soil, than digestion of human food will proceed favorably in a diseased stomach. Clover will thrive on your well drained bottom land, even if it be originally pipe clay; or on good upland, plowed to a sufficient depth, if it be not exhausted; if so, a slight dressing of manure will give a good stand.

We have received from a subscriber, whose letter has been mislaid, after a private reply to it, several heads of Terrel Grass or Wild Rye. Our impressions of this grass are very favorable. With Lucerne and the Terrell grass, the one for hay and soiling, and the other for winter pasture, the planters of the cotton region need be at no loss in stock raising and the improvement of their lands. The Terrell Grass thrives admirably in woody pastures. We are inclined to prefer it for cattle, sheep and horses for this purpose to Blue grass. We have been collecting the seed for one or two years, and shall have a considerable amount on hand for sowing. In the hope of calling attention to this grass, we make the following offer: To any one of the subscribers of this journal, who will forward one new name and subscription to the Associate Editor, at Kingston, a small sample of the Terrell Grass seed will be sent, prepaid, by mail. This offer is made in order that our friends, having once seen the seed in its head, will be, hereafter, able to furnish themselves from their own farms. It is a native of every part of the State. But stock are so fond of it, that it is never allowed to go to seed if they can reach it; hence it has failed to attract observation. We do not speak with entire positiveness as to this grass. Our impression, we repeat, thus far, are very greatly in its favor.

H.

To CORRESPONDENTS, PUBLISHERS, &c.—Several interesting communications, valuable books, &c., were received too late for present number—but will appear in our next.

PUBLIC DOCUMENTS.—We are under very special obligations to Hon. A. H. STEPHENS, of Georgia, and Hon. J. H. HAMMOND, of South Carolina, for public documents of great interest and value.

DR. BRADWELL'S PROPOSITION.

It is, perhaps, not known to some of the readers of the *Cultivator*, that Dr. BRADWELL, of Bainbridge, Ga., has offered to be one of one hundred men, who will give \$1000 each for the establishment of an Agricultural College in Georgia. We have the satisfaction of announcing that H. D. COLE, Esq.; of Marietta, seconds this proposition of Dr. BRADWELL, by expressing his willingness to be one of the hundred men. Mr. COLE adds, that if the requisite number be made up and the Institution should be established near Marietta, he will give to it \$1000 per annum for five years. Planters and Farmers of Georgia, will you consummate this noble purpose? God has favored you most abundantly. There never was a period in our history more propitious than the present for the success of such an undertaking. Such an institution is greatly needed. The ordinary course of education, not in reference to professional men, but to those who are to manage Agricultural interests demands material modification. We shall enter very fully into the examination of this subject in the next issue of the *Cultivator*. In the meantime, we ask those whose interest in the subject of Agriculture is great, and whose fortunes have been so prospered as to furnish them with liberal means, whether it be not in their power without inconvenience to complete that which has been so handsomely begun. By the precedents which have been set we may be assured of aid from the State to an amount equal to the extent of private subscription.

H.

A "FAMILY SCHOOL."

To Parents or Guardians who desire to educate their daughters or wards in a well-ordered Christian family, in a perfectly healthy locality, surrounded by beautiful scenery, and far removed from all the temptations and distracting influences of cities or "cified" villages, we cannot too earnestly recommend the "Boarding School for Young Ladies," just commenced at Kingston, Ga., by the accomplished daughters of our Associate, Rev. Mr. HOWARD. This School is limited to a moderate number of pupils, and it presents very rare advantages to all who prefer giving their daughters a solid and useful, rather than a merely superficial and showy, education. [See advertisement on cover of present number]

D. R.

TO ADVERTISERS.

THE *Cultivator* advertising sheets offer one of the very best advertising mediums in the country, and the following paragraph deserves the careful attention of every business man:

"Some say 'they cannot afford to advertise.' In this country, where everybody reads the newspapers, the man must have a thick skull who does not see that those are the cheapest and best mediums through which he can speak to the public, where he can find customers. Put on the appearance of business and generally the reality will follow. The farmer plants his seed, and while he is sleeping his corn and potatoes are growing. So with advertising. While you are eating, or sleeping, or conversing with one set of customers, your advertisement is being read by the hundreds and thousands of persons who never saw you, and never would have heard of you, had it not been for your advertisement in the newspapers."

CONDENSED CORRESPONDENCE.

CORRECTION.—*Editors Southern Cultivator*—Sometime since I directed a small note to Col. John R. Stanford, of Clarksville, Ga., on the subject of his Wild Oats, which note I find published in your journal. In said note I perceive a small error which I wish you to correct in your next number. In the first line, the word "respecting" should be *requesting*; and again on the next line, "is received," should be, *has been received*.

Your obedient servant,

HENRY MCKENZIE.

Talladega, Ala., June 10, 1859.

"MINUS COTTON"—A NEW SORT.—*Editors Southern Cultivator*—A few days since my overseer brought me a stalk of cotton, and, as it is something uncommon, I thought I would enclose to you one of the bolls, asking your opinion what was the reason there was no lint made on this stalk as well as on the balance of cotton near it.

Enclosed, I send you one of the opened bolls with seed in it, and a part of a green unopen boll. By this you will see there is no lint on either.

Many persons have seen this stalk of cotton, and none of them have ever seen any other cotton like it.

I think the name of "*Minus Cotton*" appropriate to it.

I am respectfully, J. P. D.

Cherokee County, Texas, 1858.

[This Cotton seems to have suffered from disease, or is a singular "sport" of nature. We have never seen anything like it before, and can assign no reason for the odd freak presented by the seed before us. Texas is a "great country," but her glory will soon wane if her cotton stalks get into the habit of producing all *seed* and *no lint*. Will not our planting friends, there, put a stop to this state of things at once?—EDS.

TO KILL SWEET GUM TREES, &c., &c.—*Editors Southern Cultivator*—Cut round them in the month of August and they will die, root and branch.

Willow can be killed by skinning them in the month of May.

The above I have learned by experience.

Nankin Cotton will not pay. I made a bale several years ago, but could find no one who wanted it. I gave it to the old ladies in my neighborhood, who spun and wove it on shares; and never do I want to see Nankin Cotton again. It will mix with other cottons, and on red lands one cannot find it when it opens without looking very close.

As regards the burning of forests, "J.'s" ideas coincide with mine, precisely. It should be done before the trees put out.

L. S. J.

CORRECTION.—Please correct the signature to the article, "Dignify and Exalt Agriculture," in the May number of your journal. Instead of B. F. K., it should be B. F. R.

Your friend and reader,

B. F. R.

Near Okalona, Miss., May, 1859.

LIME, &c.—I have been a regular subscriber to the *Cultivator* for some 15 years, and have learned some valuable information from it, and I expect to send on my dollar as long as I and the *Southern Cultivator* both lives. But I have not found in it, to my satisfaction, the best mode for using Lime as a manure; and as we have an abundance of it in my county (Jackson, Fla.) I would be much pleased to see something more from your correspondents on that subject.

Hoping that I may live many years yet, and that your journal may still go on to live and increase in subscribers

until it shall revolutionize the Agriculture of the South,
I am yours very truly,

SUBSCRIBER.

Campbellton, Fla., 1859.

THE SEASONS—OUR PAPER, &c.—*Editors Southern Cultivator*—Having never troubled you with a communication, I hope you will not think it presumption in me so to do, for once at least.

We have had a vast deal of rain during the whole winter and spring. It has rained every week, more or less, since the middle of November. Our seasons have almost undergone a change. Instead of winter and summer, for the past two years, we have a wet season and a dry one. Farmers were rather backward in planting their crops in consequence of the wet and backward spring. But notwithstanding, we have very good stands of corn and cotton, and both look very well. Wheat is rather inferior.

The Locusts have made their appearance again. They are quite plenty.

We look forward with bright anticipations to the time for each number of the *Cultivator* to come. We are getting to believe pretty strong in "Book Farming," in these parts.

Trusting that it may never cease to make its monthly visits to our homes, I subscribe myself,

Yours hopefully, E. L. M.

Jessamine, Tenn., May, 1859.

GARDENER FOR ARKANSAS.—An esteemed subscriber, at Pine Bluff, Ark., writes:—"Please let me know at what price per annum I can procure the services of a gardener. A steady, industrious, unmarried man would be preferred. I have eight acres here running up to the corporation line, and I wish to get some one to lay off and beautify it and assist in putting out vines, fruit trees, strawberries, etc."

M.

MANURE FOR WHEAT.—*Editors Southern Cultivator*—I have fifteen acres, now in wheat, of our East Tennessee Mulatto land, originally good, hickory, now somewhat worn. I want to put the same field in wheat again and want to apply some one of the fertilizers. Which will be best, guano or the National fertilizer? or which will cost the least? Of whom can I buy either? I believe you answer questions, I therefore take the liberty to ask the above.

R. A. R.

REPLY.—Use the best Peruvian Guano—250 to 300 lbs., broadcast, per acre—plowed deeply under, and ground finely harrowed. See advertisements on cover, for names of dealers in fertilizers.—Eds.]

THE TOMATO.—Can you or any of your subscribers tell of any easy means of preventing the large green worm or caterpillar from infesting this plant? Lime and Plaster have both failed.

ENQUIRER.

STORM IN GREENVILLE, GA., &c.—Please send me the *Cultivator* for the enclosed dollar. I am preparing to commence farming next year, and I hope to be materially benefited by it. We had, on yesterday, rain and hail around and about this place, but, so far as I have heard, no damage has been done to the crops.

Greenville, Ga., July 1st, 1859.

A SURE REMEDY FOR A FELON.—It is said by some body, who pretends to know all about it, that the following is a sure remedy for the felon:

"Take a pint of common soft soap and stir in air slackened lime till it is of the consistency of glazier's putty. Make a leather thimble, fill it with this composition, and insert the finger therein, and a cure is certain."

We happen to know that the above is a certain remedy,

and recommend it to any one who may be troubled with that disagreeable ailment—*Buffalo Advocate*.

TO KILL SASSAFRAS.—*Editors Southern Cultivator*—I see in your April number, a gentleman inquiring how to kill Sassafras. You can publish the following if you think it worthy of a place in your journal: Sow down your land in the spring in oats. Don't take up your sprouts—let your hogs have the pasture. The next year let your land lie out. As soon as the Sassafras commences to put out, turn your cattle upon them. If you have cattle enough to keep them well trimmed during the year, it will prove fatal to them.

Yours respectfully, J. B.

PEARS, GRAPES, &c.—"The man who would talk politics in his orchard would eat a Pear with a case knife!"

"Mr. Van Buren's note on names of Apples is quite a contribution to English Literature. Hope he will continue the subject.

Speaking of Grapes—Would you encourage their training on Fruit Trees? I have seen some splendid specimens lately, covering the only healthy apple tree (a foot through) that I have ever seen in Middle Georgia.

[To the last question, we are conscientiously obliged to answer, No. Grapes (for wine, especially,) need all the sun they can have, (upon their leaves, not upon the fruit)—when trained on trees it is impossible to prune properly—difficult to gather the crop, and the fruit is not apt to ripen as early or well. We do not think the practice of training upon trees is common in any country noted for its fine wines. See letter of M. FOURNIER to R. BUCHANAN, Esq., elsewhere in present number.—Eds.]

CROPS IN HANCOCK COUNTY, GA.—A young Planter, of Old Hancock, writes us, June 25:—"I am now farming to myself, and am as well pleased as I could be. I did not move home until the 7th of March, and began work on the 8th. My crop is better than I expected. I finished chopping cotton on Friday morning, the 17th inst. I shall begin to lay by my corn in a day or so. There has been a great complaint of grass, but I think it now all dead. I am entirely free of it, and I take it for granted that everybody is ahead of me." B.

Horticultural Department.

STRAWBERRIES IN THE SOUTH.

Remarks upon their Cultivation, and Description of a few of the best varieties, such as careful observation has proved best adapted to this climate.

EDITORS SOUTHERN CULTIVATOR—The culture of the Strawberry, although carried on to some extent in the immediate vicinity of our cities, has not, generally, received as much attention as it deserves. The Strawberry crop must only be secondary to that of the Peach; and, perhaps, can compete with it successfully. Its cultivation requires less space and outlay than the Peach, and is accessible to every person possessing a few rods of ground. More attention ought to be paid to this fruit, especially where we have the advantage over Northern producers, by the crop being larger and the length of bearing season double to triple. In very favorable locations, where artificial irrigation can be practiced, and with careful attention, the season of its fruit may be extended until late fall.

The best soil for the Strawberry is a deep loam, well manured and deeply worked. After preparing the ground thoroughly and leveling it, the best mode is to plant in

rows two to three feet apart and the plants, especially those of the large growing kinds, two feet in the row; the smaller growing kinds may be planted at less distance; but the rows must not be less than two feet apart. As soon as the first runners make their appearance, they must be cut off, unless many plants are required for after planting, but if left it will be to the detriment of the following year's crop. The space between the rows, in large cultivation, may be worked with a coulter-plow, stirring the ground deeply, and followed by the hoe; care must be taken not to injure the roots of the plants, neither to scrape the ground from them, or to hill them up; a perfect level working is always the best; frequent workings are necessary to insure a fair return, and the ground must be kept clean. A top dressing of leaves, straw, etc., is highly beneficial, put on the ground before the berries begin to ripen. In autumn, a coat of fine manure must be spread over the beds and worked in well; a good autumn manuring and thorough working is necessary.

The second year after setting out, and after the plants have produced their crop of fruit, allow two or three runners to remain on each plant and lay them in the row so as allow the young plants to strike roots in the intervening spaces. In the fall recommence, as in the former year, by spreading manure upon the ground and remove all the old plants, only leaving those of the years' growth, and thin them out to the required distances. By pursuing this operation the beds are continually renewed at little trouble and will always insure a full crop of fruit. Plants set out in October and November, will bear remunerating crops the following April; if planted in the spring, the crop is lighter.

The blossoms of the Strawberry are of two kinds, and by some classed into four, but it has generally been the custom to divide them into two main divisions, although there is a third class, having both organs perfect. The first class is the male plant, or Staminate; the second, the female, or Pistillate. The third, combining both organs, is called perfect or Hermaphrodite. In order to gather a full crop of fruit it is necessary to plant both classes in proximity to each other unless only hermaphrodite plants are used. It has been conceded to use only two terms, one pistillate and the other staminate or hermaphrodite, allowing the two last appellations to define one class of flowers.

The proportion of plants relative to sexes has not been agreed upon, but a good average is four pistillates to one staminate. Care must be taken to cut the runners from the staminates oftener than off the others, as having very little fruit to produce, will soon overrun all the others and destroy the fertility of the beds.

In planting in rows, plant four rows of pistillates; allow more width for the fifth row, which plant in staminates, and so on alternately.* In all cases where a large yield of fruit is expected, carefully cut off the runners at least four times during the growing season.

The family of Strawberries is divided in six classes, distinct from each other by their growth, form, color and size of leaves, and by the quality, shape and size of fruit.

First. COMMON Wood, (type of which is *Fragaria Vesca*) has light serrated, small foliage; flowers small and always hermaphrodites; berries round or oblong, red or

white. This class comprises the *Wood* and *Alpines*: some as the *Bush Alpines* are destitute of runners.

Second. GREEN or STAR, (*Fragaria hetrophylla*).—Foliage small, dark green; flowers small hermaphrodites; calyx close set upon the berries and forming a star; fruit small, round, whitish green. Not much cultivated, being more a curiosity than a good fruit.

Third. PINES (*Fragaria Caroliniana*).—Foliage very large; flowers large, pistillates and staminate; calyx closely set upon the fruit; berries large, round or oblong, red, scarlet, pink or white.

Fourth. SCARLET *Fragaria Canadensis*).—Foliage very large, pale and bluish green; flowers small and medium, pistilate and stamine, berries medium, sometimes large, scarlet, early and produced upon slender stalks; calyx set close; seeds deeply set.

Fifth. CHILI (*Fragaria Chilensis*).—Foliage silky, dark, grows generally lower than the other classes; flowers large, both sexes. Plants easily distinct from other classes by the peculiarity that the berries are turned upwards when maturing, being the reverse of the other classes.

Sixth. HAUTBOIS (*Fragaria Elatior*)—Foliage light green, large, woolly, petioles straight, strong; flowers medium of both sexes; calyx turned up; berries large, round or irregular, dark red, peculiar flavor, musky.

Of the varieties which we have proved the past season, I will only describe the following. (P. means *Pistillate*; H. *Hermaphrodite* or *Stamine*):

Black Prince.—(P.)—Berries very large, conical, almost black at maturity, seed few, large, flesh solid, blood red, with a high, musky flavor; very prolific.

Crimson Cone.—(P.)—Medium, oblong conical, crimson, good flavor; very productive.

Jenny Lind.—(H.)—Early bearer, large berries, conical, scarlet, high flavor; prolific.

Jenny's Seedling.—(P.)—Medium to large, very prolific.

Genesee.—(H.)—Large, conical, necked, bright scarlet, early; good.

Hovey's Seedling.—(P.)—Large, oval or conical, deep scarlet; seeds slightly imbedded; rich, high flavor; productive when properly fertilized.

Large Early Scarlet.—(H.)—Much valued for its earliness, and an excellent fertilizer.

Longworth's Prolific.—(H.)—Large, round, very handsome and productive; good flavor.

Monroe Scarlet.—(P.)—A very good, light red, berry, good flavor and prolific.

McAvoy's Superior.—(P.)—Very large, long or conical; good flavor and productive.

Pennsylvania.—(P.)—Large, good flavor, peculiar foliage.

Walker's Seedling.—(H.)—Medium, very dark, large calyx and high flavor; very prolific.

Wilson's Albany.—(H.)—Much has been said about this variety, and it comes up to its reputation in every respect. It is, undoubtedly, the most prolific of all Strawberries, combining size and quality. Perhaps in some localities it will prove too acid. Its productiveness prevents it from making many runners.

Wardlaw.—(H.)—An excellent Southern berry, very early and prolific; a very good market variety; berries medium, scarlet and high flavored.

Many new varieties have, undoubtedly, merits, but the above may be considered as the most valuable for their yield, size and quality. We received, last spring, a seedling variety from Mr R. Harwell, Mobile, which is called "Mary Stuart," and has, so far, proved very large and of first quality. Several of the new foreign varieties are well fitted for amateur culture. We will mention as among the best: *La Reine*, *Sir Adair*, *Kitley's Carolina Superba*,

*We would suggest a better plan than planting in rows, viz: the planting of Staminates and Pistillates in separate beds—one small bed of Staminates between every two beds of Pistillates, and separated therefrom by a 4 foot walk or alley. See Catalogue of "Fruitland Nursery," or November number *Southern Cultivator* (1858), page 348, for a diagram of this method.—E.Ds.

Honneur de la Belgique, Triomphe de Gand, Marquise de la Tour Maubourg, etc. The new varieties of Dr. Edmonson, *Marylandica* and *Charles Favorite* are very fine berries, but not tried enough to speak upon their merits, compared with others. The *Peabody Haulbois* is a very large berry, and of good flavor, but its irregular shape and being a poor bearer are defects. It is a very strong grower, and the size of the berries make up for the small number produced.

P. J. B.

"*Fruitland,*" Augusta, Ga., June, 1859.

TREE PEDDLERS FROM THE NORTH---AGAIN.

EDITORS SOUTHERN CULTIVATOR—As "Malic Acid" has "opened the ball on the above theme," will you permit one of the oldest subscribers and readers of your paper to add a few lines on the same subject to his excellent article in the July number. Persons at the South are not generally aware that the entire list of apple trees at the North, with but very few exceptions, are in a discarded and enfeebled state; so much so indeed, that the subject, as to the cause and what are the remedies necessary to their restoration to health, is of frequent discussion in the meetings of their Pomological Societies, so that those procuring this species of fruit trees from that region are not only getting those not naturally adapted to our soil and climate, but are getting diseased trees which will not succeed anywhere. This fact is so well known, not only by Northern Nurserymen, but orchardists there generally, that they are resorting to scions and trees of Southern origin for home use, well knowing that it is useless to plant the old varieties, with the expectation of deriving fruit of any excellence from them.

This year will witness more Southern trees going North to be planted there, than there will be coming from there to the South, unless the impositions and success of the itinerant tree peddlers have been very successful in making engagements for the delivery of trees the coming winter.

The Nursery business at the North has been overdone for the last few years; an immense stock of Apple, Peach and Evergreens, are on hand, which can be had for almost any price, and having, in a great measure, lost the Southern trade, agents, peddlers and drummers are sent out to work them off at what they can get for them! Some may be led to suppose that Southern Nurserymen are only advocating the use of Southern raised trees through interested motives. To such, permit me to say, you cannot separate the interests of the Nurserymen from that of their customers—both must flourish or both must fall together. A Southern Nurseryman cannot succeed in perpetrating a fraud upon his customers but for a very brief space of time before he is detected—not more than three or four years—he would fail in business before he could get it successfully started. It is for his interest to tell the truth, and nothing but the truth, not only in the descriptions of trees he offers for sale, but also in the modes of planting and cultivation; for should his customers fail in raising fruit, he must, consequently, fail in selling trees.

This mutual interest does not exist between Southern purchasers and Northern peddlers—the latter sells his trees and removes to a thousand or two miles distant, and is never known or heard from again, doubtless much to his satisfaction, after having gulled somebody and having made a profitable trip.

That there are many high minded, honorable gentlemen engaged in the Nursery business at the North not only will we admit, but know, and who will, if their opinions are asked, honestly and frankly tell you that their trees and varieties of many fruits will fail here; and while we are cautioning the Southern public in relation to tree

peddlers, we take equal pleasure in recommending many regular Northern Nurserymen for honesty and integrity, and we would take *especial* pleasure could we say this for all in the regular trade there.

It is but a very few days since we saw a notice that a Northern Nurseryman was selling a new Southern seedling fruit, while at the same time it had never passed out of the hands of the originator, who resides in one of the Southern States. Whether this Nurseryman has agents and peddlers at the South we cannot say; but a man who will be guilty of the above fraud, would not hesitate to sell a Persimmon tree for an Orange, could he find a purchaser

A word as regards Roses. One Southern raised Rose bush is worth a dozen raised at the North. A good and well grown Rose has never yet been grown, nor can one be grown there. We have seen many sickly, feeble, wiry, diminutive things called Roses, set out in pots, but never such robust, vigorous plants as are to be found in Southern Nurseries; and when we make these remarks we wish to be understood as speaking of the newer and improved varieties, and not of the old spring Roses.

We probably, last winter, saw some of the same tribe of itinerants, described by "Malic Acid," with jars of fruit and flaming hand bills. At one time we stumbled upon three of these worthies in one place, and were credibly informed that they had succeeded in making engagements for the delivery of trees at a future time, to some of the citizens of the place.

This imposition, will, no doubt, work its own cure. Three or four years, however, will be required to accomplish it, and then the peddlers will be setting on some bass-wood, white oak stump in Massachusetts, whittling out cucumber seeds and singing,

"Hail Columbia, happy land,
If I haint nicked 'em I'll be darned!"

J.

July, 1859.

ORCHARD RAMBLES---NO. 1.

THE APPLE IN MIDDLE GEORGIA.

"The Apple is the Surest Fruit Crop in Middle Georgia."—Southern Cultivator.

EDITORS SOUTHERN CULTIVATOR—The Autocrat of all the Breakfast Tables, in laying down the law with regard to "Slang," limits its use to those cases in which ordinary language fails to do justice to the subject, without danger of exhausting itself.

He would, therefore, hold me excused for saying that the above paragraph fairly "lifted me off my feet!"

I hereby protest against the claims of the "Georgia Calf" to the arch symbolship of wretchedness until the rights of the Middle Georgia-Apple-Tree are fairly investigated.

Generally the rear-guard of an utter pomological defeat, it presents, like Marshal Ney, an epitome of courage and calamity,

"I am ye Orchard!"

In the desolate heart of the worn out old field; by the brink of the blood red gully; in the wildest tangle of briar and broom-sedge; on whatever bald declivity the sun in his journey brands his fiercest "Farewell to Hope"—there the Apple still lives, and—brings forth fruit.

Every man has his Apple Tree, whose reputation it were no more safe to assail than that of his wife or of anything else that is his.

Didn't he give a dime for the apple? Didn't he plant the seed? Didn't he rear the tree? Hasn't he eaten of the fruit thereof? Wasn't it as big as his head? as yellow as a pumpkin? as "meller" as a turnip; and didn't it keep like a brickbat?

I confess, in younger days, before Hope and *Faith* parted company, having made various pedestrian pilgrimages of a devout character to a number of vegetable wonders, of which the above might figure as a mild average; and I have a recollection running through a period of years of the figure of an Apple Tree, something like the following:

The roots tortured by the aphis, and torn by wild horses (and plows); the trunk barked by rabbits, bored by borers, pecked by wood-peckers, blistered to mortification by the sun, and plastered to suffocation by the scale insect. The forks, the home of caterpillars, and the leaves their sustenance; the limbs moss-covered; and the fruit—never failing, and never, by any possible complication of accidents, allowed to mature. Then, coming down, we get an inventory of its personal property. One tin coffee pot; one earthen tea do; various specimens of domestic crockery, some, too,—to particularize: 3 pair brogans; specimens, each, of plow, hoe, broom and skillet handles; skeleton remains of ox, principally ossa femoris and pelvic bones; do. of horse; do. of cat, entire; one “battling stick;” sundry bits of paling; articles of wearing apparel; clubs in quantity, from a walking-stick to a martin-pole!

Yet, the most astounding part of the revelation quoted at the head of this writing is—its truth!

The Apple is the most certain Fruit-crop in Middle Georgia, and like

“A true Cosmopolite
That loves its native country best,”

has amply demonstrated that its failure, as a Fruit, has not been, in any particular, its own fault.

Principally used for green soiling our little negroes, we have been satisfied with its certainty, while it lived; and not much aggrieved by its loss, when it died.

Circumstances, however, are conspiring to render this point of mere certainty of production an exceedingly valuable one from which to contemplate the *Future* of the Apple in Middle Georgia. A field so wide and so fruitful that I must reserve its consideration for another letter.

T.

Torch Hill, Ga., June, 1859.

P. S.—Will your readers, who may be interested in this subject, communicate the measurement of such Apple trees of their acquaintance as are remarkable for size?

NORTHERN TREES, VINES, &c.

A well-known Nurseryman of Western New York—who is justly noted for his integrity and fair-dealing—in a late private letter to one of the editors, thus endorses the position of “Malic Acid,” in regard to Northern fruit trees, &c.:

“We notice, upon page 215 of the July number of your journal, an article by ‘Malic Acid,’ which any sensible man must know to be eminently true as regards Apples, and partially so as regards some other trees. Even the sorts of Apples which are eminently valuable in New England are poor here and valueless in Ohio, without any change of latitude. How much more so when transplanted 10° or 15° further south?

“The Grape, however, will bear change of climate, of altitude, of latitude, of longitude and of humidity or of dryness better than any other plant or vine, and better than any tree.

“We know that the Diana, Child’s Superb, Anna, Delaware, West and Union Village will grow finely 8° south of us, and we ‘guess’ they will 10° south of us.”

REMARKS.—We thank our friend for his frank and manly admission in regard to the unsuitableness of *Northern*

Apples and other fruits for the South. If all Northern tree dealers were as fair and candid as he is, the animadversions of “Malic Acid” would not be so much needed. We fully admit the cosmopolitan character of the Grape. It is at home almost everywhere, and adapts itself readily to all soils and localities in the temperate latitudes of both hemispheres. It now begins to be understood and admitted, however, that in America its true clime is between Texas and Virginia; and therefore, (until we can raise them for ourselves,) we will thankfully purchase a few of the new “fancy” sorts of Grape from gentlemen like our Western New York correspondent.—Eds.

CATAWBA GRAPE--ITS ORIGIN, &c.

We take pleasure in publishing the following letter from that indefatigable Pomologist, SILAS McDOWELL, Esq., of North Carolina, to Col. WM. MURRAY, of Catoosa Springs, Ga. We hope our friend, Mr. McDowell, will often make the *Cultivator* the medium of his valuable communications to the public:

COL. WILLIAM MURRAY—*Dear Sir*:—I suppose you are aware that to you is accorded the honor of finding and introducing to cultivation the very best native Grape in the United States, viz.: the “Catawba,” said to have been sent by you to Mayor Adlum, of the District of Columbia. I have been called on by some scientific gentlemen to furnish them with the full and true history of that Grape, and particularly to state the precise locality in which you found the original vine growing, and also your reason for naming it “Catawba.”

I have just returned from a visit to the place of your former residence, in Buncombe county, N. C., and on strict inquiry in regard to where you found this splendid native Grape, I was informed that you found it on your own grounds, on the plantation you since sold to Mr. Daniel Blake, on Cain Creek. A circumstance which rendered this statement, to my mind, the more probable was, that in the year 1827, on the lands of the Rev. Wm. Kinsey, at the junction of Mud Creek with the French Broad, some young ladies led me to a native vine, in its wild state, in a direction north east of the dwelling, which, for excellence of quality, was, in my opinion, a full head and shoulders above your far-famed “Catawba Grape.”

As regards size, your grape was its equal; but as relates to every other attribute of a first class wine or table grape, that of Mud Creek was far its superior, being of rich juicy, sweet, and highly aromatic pulp, and remarkably thin, tender skin. This locality cannot be more than four or five miles from the ground where you found the “Catawba,” and, in all probability, they are but varieties of the same family. It is the wish of gentlemen with whom I am in correspondence that the credit of your very important discovery should be given where it is due, and that to “Cesar” should be rendered the things which are Cesar’s.

Be so kind as to furnish me with a concise history of your Grape at your first leisure, so that I may send it on for publication in the *Cincinnatus*, Agricultural journal.

For the last two years there has been an increased impulse given to Grape Culture—particularly native varieties—and Horticulturists are upon the *qui vive* for new and fine varieties, and it has been remarked by men whose opinions are of much weight, that the individual who may succeed in finding and introducing into cultivation a better Grape than Murray’s “Catawba” will have conferred a greater benefit on his country than if he were to pay off its National debt.

I wish you, dear sir, a lengthened and peaceful old age,

SOUTHERN CULTIVATOR.

and that you may long enjoy the honor of introducing to the notice of the world what now stands at the head of all American Native Grapes—Murray's "Catawba."

Your friend truly,

SILAS McDOWELL.

Franklin, Macon Co., N. C., June 16, 1859.

GRAPES NEAR THE GROUND RIPEN EARLIEST.

At a late meeting of the Cincinnati Horticultural Society, the following letter of Mons. J. FOURNIER, the director or chief of Mr. LONGWORTH's wine cellars, was received. We extract from the Society's Minutes:

The following highly important and interesting communication from Mr. J. Fournier to Mr. R. Buchanan, was read and ordered to be engrossed with the minutes of the day :

CINCINNATTI, April 30, 1859.

R. BUCHANAN—*Dear Sir* :—I send you a translation from the *Courrier de la Champagne*, about vineyards and wine:

"Every person knows that all the grapes growing nearest the ground are reaped the first.

I made, this year, an experiment for my own satisfaction. I kept some grapes twenty-five millimetres above the ground, and the others at three feet. The most of the first gave ten degrees of Barometer, the second, nine and a half degrees.

I have repeated this experiment several times. There was no difference in the result. You can see by the density of this must, that an elevation of seventy-five centimetres from the ground reduced the saccharine matter one-twentieth. This experiment proves how deficient the wine is, produced by the vines elevated on trees.

I have remarked that the Riresaltes Muscat wine had a taste very similar to dry grapes; though this wine has been made with grapes not very ripe. This is the reason: It is a usage at Riresaltes to let one branch of every stalk of vine spread along on the ground. The grapes of these branches are reaped first and dried, communicating to the Muscat the particular and celebrated taste that distinguishes it from every other wine."

I should like to see some intelligent vine-dresser of this country make this same experiment.

With my best regard, believe me, gentlemen,
Your very humble servant,
J. FOURNIER.

WINE MAKING IN THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—As the subject of Wine Making is, at this time, one of much interest to your readers, I send you the following extract from a letter on the subject. It is from a gentleman of much experience :

"To make Catawba or Scuppernong Wine, the first requisite is good ripe grapes. Gather on a fair day after the dew is off. Mash all you gather in the day and put the mashed grapes, pumace, or *marc*, in a stand as you would peaches after beating (I have them mashed with the hand in a tub) let the whole stand until a slight degree of fermentation commences—say 10 to 24 hours according to the heat of the weather. Then draw off the must or juice, and subject the pumace to the action of a press, until all the must is separated from it. The next point is to decide when to put the pumace to the press. Take it too soon and you lose part of your must. Let it work too much and your wine will have a roughness imparted to it from the foot-stalks and hulls.

I should have added, before you mash, pick off all rotten and green berries and cut off the foot-stalks close to

the grapes. When I begin to mash I ascertain the weight of the must by the hydrometer. (When good and the grape ripe, it will mark 10° on Baume's hydrometer.) I then take a gallon of the must and weigh and add loaf of crushed sugar till it marks 16 1-2 or even 17° by the instrument. After this is measured, the sugar is added, and all turned into a clean, and sweet cask. I never fumigate with sulphur, with fresh must. It requires 1 1-2 1 3-4 lbs. sugar to the gallon. Reserve 6 to 8 per cent. of the *tempered* must to fill up with Place your barrel high enough to decant the next spring into a fresh barrel without moving it. For the first week fill up every day, leaving the bung open for two or three days, or until a white foam begins to work out—then drop in your bung and fill up every other or every third day. When the fermentation subsides to a fret, tighten the bung, but place a small gimlet hole by its side with a plug dropped loosely in it. Finally, when all fermentation is over, drive all tight.

On the following March decant into a fresh barrel, fumigated with a sulphur match. On the third year and after the *second decanting*, the wine will be potable.

The Scuppernong must is treated by adding one pound *loaf* sugar and one quart good brandy to each gallon of must, and then treat it as the other.

Last year I varied by process with the Catawba juice. I added one quart brandy and one pound sugar to each gallon of must, as with the Scuppernong. It will make a good wine one year sooner; but the cost of the brandy is an object now—next fall it may be lower."

Yours, H. B.—.

For the Southern Cultivator. TO THE VINES OF "VINELAND."

FROM THE "TEA" OF TORCH HILL.

*Respectfully tendered from "One" side of the State to the
"Other!"*

I. New "Vinelands" for another Rhine!

New Banks for Blue Moselle!

New lands of Promise! and new Wine

To treat New-Comers well!

No Etna-crags! no lava rills!

No black Vesuvian cliffs!

Now stake one Vine on Georgia's Hills,

To ten on Teneriffe's!

II. Now down with all the old-field pines!

Now death to yellow sedge!

Ye blood-red gullies! blush with wines,

Celestial to the edge!

For what doth make a land appear

The loveliest of lands;

So soft through Exile's parting tear,

So warm in welcome hands?

III.

The Vine! The Vine! In all the lands

Beneath its light and bloom,

Most golden of the "Missal bands"

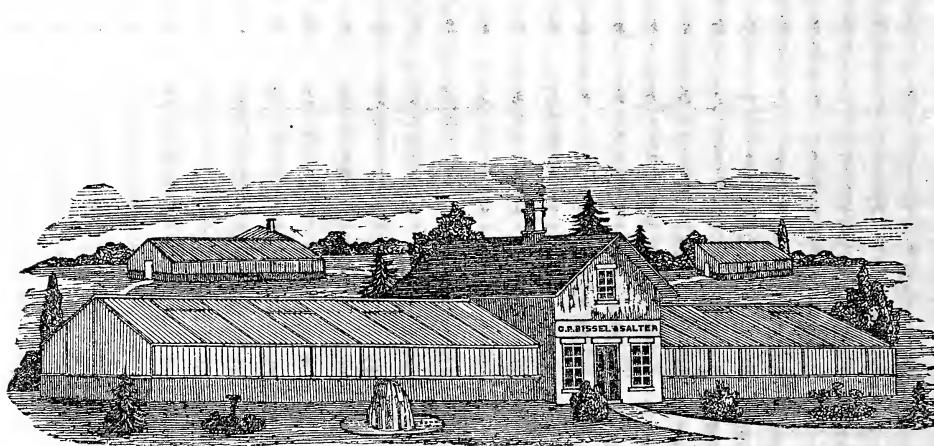
That bind the "Book" of—Home!

New Vinelands for another Rhine!

New Banks for Blue Moselle!

New Lands of Promise and—"New Vines

That also promise well!"



A BEAUTIFUL GRAPERY!

OUR native American Grapes are now generally admitted to be one of the surest and most profitable fruit crops that can be raised ; and, accordingly, we find that among the enterprising and zealous horticulturists of the North, great attention has been devoted to their culture and propagation, within the past four or five years. We know amateurs who have now over 100 native varieties on trial, and several gentlemen who are regularly in the business, cultivate 50 or 60 native sorts for sale. The writer has nearly 100 varieties (mostly native) growing at "Vine-land," (near Augusta) and hopes next season, to begin to test their comparative merits for the table, for wine, adaptation to the climate, productive quality, &c., &c. Any of our friends or subscribers who may have *new* seedling Grapes of Southern origin, or fine, RARE sorts, of especial merit, that are generally productive and free from disease, will confer an especial favor by sending us descriptions and cuttings, or roots, the coming November or December. Of course, this request does not include any of the well-known leading varieties, such as Catawba, Isabella, Warrer, Pauline, Lenior, Scuppernong, Devereux, Cape, &c., &c., all of which we now have, with many more that "promise well."

The *Genesee Farmer*, of Rochester, N Y., in noticing the beautiful Grapery pictured above, says :

"One of the best and most substantial propagating-houses we have ever seen has recently been erected in this city by Messrs C. P. Bissell & Salter, of the East Avenue Nurseries. It is 105 feet long, 24 feet wide, and is fitted up in most superior style, with a complete set of flues, hot-water pipes, and propagating tanks; the whole costing about \$3,000. It is now principally devoted to the propagation of hardy native grape vines, embracing all the new and most valuable varieties; their collection numbering upwards of fifty sorts.

"We have great pleasure in presenting our readers with an excellent engraving of this model propagating-house. It is well worthy of a visit. Messrs B. & S. are

experienced fruit growers, and well deserve the patronage they enjoy. They take great pains to test every new variety of grape, and recommend none that will not be found worthy of cultivation. They are gentlemen of great skill, intelligence, and reliability; and we cannot but rejoice in this new evidence of their prosperity."

Messrs. BISSELL & SALTER, in their Catalogue, remark : "In these houses we have, during the past winter, (1858-9) grown with great success those most celebrated new and rare foreign varieties of vines, the Bowood Muscat, the Golden Hamburg, and the Muscat Hamburg. The notices which we have received from those editors and others, to whom we have sent the fruit, have been most highly complimentary."

For the benefit of our (Southern) readers, we would remark that many of the fine foreign sorts that are necessarily grown under glass at the North, can be successfully raised in the open air at the South, especially if grafted upon hardy native roots, and that in this highly favored clime we have every possible encouragement to prosecute the culture of the Grape with unflagging zeal and perseverance.

We had the pleasure, not long since, of visiting the splendid Vineyard of Senator HAMMOND, of South Carolina (at "Redcliffe") and were delighted with its luxuriant growth and fine appearance. In addition to the leading native varieties, Senator HAMMOND has, undoubtedly, the finest and most complete collection (between four and five hundred varieties) of foreign Grapes, in the South, or the Union. These were collected in France by Prof. HAMMOND, and are all growing vigorously. We see little difference, thus far, between those grafted on native stocks and others on their own roots, but the former will, unquestionably, bear our climate better and prove longer lived.

Upon this especial subject of grafting Foreign Grapes upon Native roots, we will, in our next, publish the very remarkable statements of Hon A G SEMMES, of Florida, from ALLEN's work on Grape Culture.

D. R.

NORTHERN FRUIT TREES, &c.

EDITORS SOUTHERN CULTIVATOR—I was pleased to read the article of your correspondent “Malic Acid,” in the July number of the *Southern Cultivator*, and hope that warning voice will be duly heeded. That “cows afar off have long horns,” may be true; but that Northern fruit trees are as well adapted to our wants as those raised in our own climate, I shall never believe.

The positions of “Malic Acid” are incontrovertible! If you want to raise healthy trees and fine fruits, get Southern raised trees, and if possible, of Southern varieties. I am utterly astounded at the ignorance and infatuation of our people upon this subject; for, notwithstanding the *Cultivator* has labored long and faithfully to instil proper views into the public mind on Agricultural and Horticultural subjects, there are, apparently, as many “dark corners” as ever.

What would our “smart” and enterprising Northern friends think of a Southern man who should go up into their country as an agent for the sale of cotton seed? Clearly, they would set him down as either a knave or a fool—perhaps both; and the tree peddlers who come here to sell us Northern winter Apples, (that ripen, rot, and drop off the tree in August) belong to the first class; while the humbugged buyers of those trees, (who think a thing must necessarily be good because it comes from afar off,) will be apt to find themselves in the ranks of the second class in a few years.

A neighbor of mine, (who in other respects is intelligent enough,) upon reading the article in your July number, stated to me that he had engaged about 200 Northern trees from one of those itinerating agents; but that he is now convinced that he has been deceived. He asks me if, under the circumstances, he is in honor bound to take the trees and pay for them. I answer, unhesitatingly—No! These trees were sold under false pretences—they are not a fair equivalent for the money—they are not adapted to our wants and necessities—“in short” (as Mr. Micawber says) they are a humbug and a swindle, and every single contract should be repudiated on the part of our people.

This will teach these impostors to stay at home, and induce our people to buy and plant Southern trees, keeping the money in our own country, and laying the foundation for her independence and success.

Yours, pomologically and truly,
H. A. L.

Hill Side, Whitfield Co., Ga., June 24, 1859.

UNITED STATES PATENT OFFICE---TEA CULTURE---Grapes---Rare Plants, &c.

A friend, who recently visited the Agricultural Department of the Patent Office, writes us:

EDITORS SOUTHERN CULTIVATOR—The new propagating Garden is operating to a charm, under the superintendance of the Hon. D. J. BROWNE. There are already growing in the green houses over 50,000 Tea plants, and more seeds and plants are on their way from China. There are, also, some 200,000 Grape Vines, either from cuttings or seeds, (principally of the latter) from the famous *El Paso* Grape, growing out of doors. The Grape seeds, sown in March, in the propagating house, have produced vigorous plants, now over a foot in height. There are, also, in propagation, a great number of cuttings of the *seedless* and *Lady Finger* Grape, from Egypt, in fine growing condition. Also, cuttings of the *Seedless Pomegranate* and *Sycamore Fig*, from the same country. I noticed, also, the *Wax Tree*, (*Rhus succedaneum*) from Japan; the *Camphor Tree*, *Loquat*, *Lechee*, *Oleo Fragrans*, &c., &c., from China.

It is the intention of the Office to place in the hands

of a few of your prominent Southern horticulturists, enough Tea plants for each to plant an acre the coming fall. About 1000 plants will stock an acre, and the labor of cultivation will not exceed that of a peach orchard of the same size. The third year about 400 lbs. of prepared Tea may be obtained to the acre, and this Tea would probably be worth from \$1 to \$1.50 per pound. From the third to the twelfth year, the product of Tea will be increased. Several ingenious men have expressed the opinion that there will be no difficulty in inventing machinery to perform the rolling or manipulation of the Tea leaves, even by steam power, if necessary, which would economise labor a thousand fold. Hence, the chief expense would be the culture and picking the leaves by hand from the shrubs.

It has been very gratifying, indeed, to me to visit this most interesting department, and I take great pleasure in acknowledging the courtesy and kindness of Hon. D. J. BROWNE, the polite attention of Mr. SMITH, of the Botanic Garden, and other gentlemen connected with the Agricultural Bureau.

S. D.

Washington, D. C., June 14, 1859.

DISEASED AND SPOTTED PEAR TREES.

EDITORS SOUTHERN CULTIVATOR—May I ask of the *Cultivator* his knowledge of a pair of dereglect Pear trees? to wit: *D' Aremberg* and *Van Mons Le Clerc*. Are these generally well-behaved, or are mine unruly exceptions? They have broken out (like the Dutchman's dog) all over “mit schpots” in small, exploded blisters; and are growing neither in stature or grace; but, “contrariwise, quite the perverse,” as Peter forcibly intimates.

Is this canker, and what to do?

Respectfully, (?)

REPLY.—The two varieties above-named are subject to that scaling or cracking of the bark (the latter is the worst); it is not canker, but a constitutional disease inherent to the varieties, as scrofula in human constitutions, but not so easily subdued or mitigated.

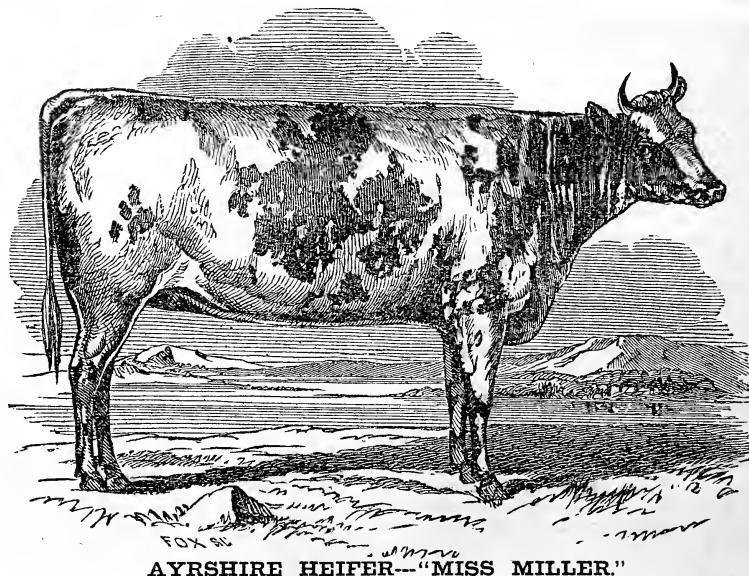
As to the what to do? it is easily answered: Drop those varieties, and take others in their place. The *Van Mons* has been given up in despair (although a truly unrivalled fruit,) by all our amateurs. It is not so in Europe (its native country) although very weak, also; and only cultivated *en espalier*—in this climate no mode of cultivation or pruning will prevent the disease coming out the third or fourth year after grafting. The *D' Aremberg* is not as bad, but will not last. We have some varieties of the same character as:—*Deux Sœurs*, *Bonne d'Eze*; superb fruits, but subject (though in a much lesser degree,) to the same cracking.

The *Cultivator* earnestly recommends giving the preference to hardy, vigorous varieties, of which ample selection can be made in the catalogue. It is more than time to do away with old rubbish.—Eds.

 The San Francisco *Herald* states that the present stock of California vines now under cultivation will yield \$50,000,000 of wines and brandies in twenty years from the present day.

 All subscriptions to the *Southern Cultivator* commence with the January number.

 My books speak to my mind, my friends to my heart, heaven to my soul, and all the rest to my ears.



THE above figure is from a painting by Marsden of "Miss Miller," the first-prize two-year-old heifer of the Ayrshire Agricultural Association, 1858. She was bred by John Kilgour, near Ayr, and was purchased by Mr. Howard for H. H. Peters, of Southborough, Mass., by whom she is now owned. The figure was taken soon after she was imported, and, of course, shows the trimness of a heifer, rather than the development which belongs to a cow. She has lately produced a fine heifer calf, and gives promise of being a superior milker.

It may be well to add, in this connection, the points by which Ayrshire cows are judged, as adopted by the Ayrshire Agricultural Association, 1853. They are as follows:

Head short, forehead wide, nose fine between the eyes, muzzle moderately large, eyes full and lively; horns widely set on, inclining upwards, and curving slightly inwards.

Neck long and straight from the head to the top of the shoulder; free from loose skin on the under side, fine at its junction with the head, and the muscles symmetrically enlarging to shoulders.

Shoulders thin at the top, brisket light, the whole fore-quarters thin in front, and gradually increasing in depth and width backwards.

Back short and straight; spine well defined, especially at the shoulders; short ribs, arched, the body deep at the flanks, and the milk-veins well developed.

Pelvis long, broad, and straight; hook bones (*ilium*) wide apart, and not much overlaid with fat; thighs deep and broad; tail long and slender, and set on a level with the back.

Milk Vessel [udder] capacious, and extending well forward; hinder part broad, and firmly attached to the body; the sole or the under surface nearly level. The teats from two to two and a half inches in length, equal in thickness, and hanging perpendicularly; their distance apart at the sides should be equal to about one-third of the length of the vessel; and across to about one-half of the breadth.

Legs short, the bones fine, and the joints firm.

Skin soft and elastic, and covered with soft, close, woolly hair.

The Colors preferred are brown, or brown and white; the colors being distinctly defined.—*Boston Cultivator.*

RUST IN OATS.

EDITORS SOUTHERN CULTIVATOR—I see the complaint of Rust in Oats and failure of crops from spring varieties is yet almost universal. One correspondent seems anxious that a remedy should be found out. Now, I have no remedy, except to sow the right kind of seed, which I have, and notified the planting public of the fact in the September number of your valuable paper last year. True my oats are a winter variety, but I have sowed them in the spring for two seasons past, and they not only escaped the rust, but made better oats than any spring crops of good seasons.

I feel free now to speak of these oats in praise without measure, not only because I have tested them thoroughly both in fall and spring sowing, for the past three seasons, but because I doubt not I can, by this time, array a multitude of witnesses in their favor throughout the Southern country. If they are a "humbug," let those who purchased of me last fall speak out!

The heads of these Oats, from some cause to me unknown, this season are turning black; but they are none the less productive, my crop this year being by far the best I ever raised—just as many as I want to trouble with, and fear I shall suffer severely in my Corn and Cotton crop by taking so much time to save them. The same bulk in the sheaf will yield half as many again seed as any other kind sowed about here. When sowed in full, poor land (as paradoxical as it may appear) is the best, from the fact that they grow so tall and head so heavy that they fall before thoroughly ripe when sowed on rich land.

Now, Messrs. Editors, why complain of rusted Oats and failure of crops any longer when the remedy is so easy and ready of access? I can supply in any reasonable quantity. Fellow planter, suffer not yourself to be humbugged any longer by the fear of humbug when it will cost you so little to test this real blessing to mankind.

Respectfully, &c.,

P. W. HUTCHESON, JR.

Watkinsville, Ga., July, 1859.

"BURNING WOODS"---REPLY TO "J."

EDITORS SOUTHERN CULTIVATOR—In the June number “J.” says he wants the subject discussed, and I do too, if there be a danger of the practice again becoming prevalent. It was once almost a universal custom among farmers, but they have wisely consigned it to the class *obsolete*. But there is a class of people that hold to old time customs with a tenacity that naught but death can sever. As soon as reason became enthroned upon my judgment, if enthroned at all, I became opposed to the practice, and have had no reason since to change my views.

When our virgin soil is allowed to hold the reins of natural freedom, we find it gifted with an inherent principle, or provision, rather, by an Allwise Providence, that enables it to provide a covering to screen its surface from the sun and scatter broad-cast the elements of future fertility. The Great Creator knew how to enrich the soil and thereby adapt it to the wants of man; hence, large sections of country, once bare of timber and minus grain-producing power, can now boast their gigantic oaks and towering pines, shrubbery thick and valuable soil. Let nature alone and she will meet her own wants and yours too in due time. You may scorch a ridge over annually and it will be a ridge and nothing more, while endless ages roll their rounds—a bleak, dreary, unsightly, poverty-stricken ridge—without timber, without soil—a worthless spot on God’s footstool—but give nature “a showing,” and soon the ridge is covered with a dense undergrowth which rapidly assumes the form of trees; a thick covering of leaves is annually deposited upon the soil; these rapidly decay, forming a rich mould and keeping the soil mellow—the dreary ridge is now converted into a dense forest, and the soil becoming richer each year, gladdening the heart of its owner and demonstrating the wisdom of Deity.

Let me appeal directly to the experience of farmers. Are not your timbered lands the best? Are not the timbered and shrubbery spots in every field the best? *Verbum sat sapienti*—but how can a forest rise in grandeur and majesty from the bosom of the plain, if the undergrowth be consumed by annual fires? Woodland is becoming scarce, and if we pursue “J.’s” plan, where shall we get our timber and the necessary ingredients for making manure in a few years?

But, says “J.” in substance, we must burn the woods or our cows will suffer. I say we had better do without beef and butter, than pay too dear for the whistle. In this we have grassy old fields inside and outside of the plantation, and enclosed cane pastures, that we find much better for milch cows than the natural woods, which are fast disappearing. So I cannot sympathize with “J.” upon this point.

But, say he, the rough woods generate malaria that mounts on airy pinions, spreading diseases over all the land. Our farmers in this section who live in the woods are just as healthy as those who dwell upon the central hills of our broad plantations. So my sympathy would be lost on this point, also. Ditch, Ditch, Ditch.

Not satisfied with these arguments, “J.” raises a fire-storm, and imagines the lurid flames sweeping with the besom of destruction in one universal conflagration over rough woods, plantations and cities, while the people’s knees are smiting together like Belshazzar’s—a perfect Judgment-day in a nutshell! But the great misfortune for his argument is, since the custom of burning woods annually has nearly become obsolete, we hear of but few plantations being burned down by fire—the danger was in unchaining the tiger and turning him loose too often.

But, says he, the ashes of burnt woods prove a valuable fertilizer—well is’t simply nonsense to talk about ashes, when their source is destroyed by fire? If we keep the timber sparse, where are the ashes to come from?

You might as well talk about showers without clouds as ashes without forests.

Kill the ticks, is another one of his arguments. We often hear the remark, that Americans are degenerating, and there seems to be just cause for the charge—in the days of ’76 our chivalric forefathers would march, with unquailing nerve, up to the foe’s rampart, that was belching fire and roaring thunder, scale the walls thereof and leap upon a hedge of bayonets! But their frail descendants take flight at a tick! I have read of an ancient Philosopher that based the earth on a turtle’s back, but never before of a logician’s basing an argument upon the back of such an insignificant insect as a wood tick! I will close with this advice to “J.”

“Let verdant forests wave around,
To fertilize and shade the ground.”

HANNIBAL.

Cypress Bluff, Jefferson Co., Ga., June, 1859.

WEEVILS IN GRAIN---REMEDY---CURING Bacon.

EDITORS SOUTHERN CULTIVATOR—I see, in the June number of the *Cultivator*, a Subscriber, from Huntsville, Fla., calls loudly for a remedy against weevils. They are a pest that have annoyed the people of Texas no little, until we found a remedy, and that remedy I can safely pronounce (from experience) as effectual, in every sense of the word; and for the benefit of all who are unacquainted with it I will give it, though, perhaps, too late for the July number:

Before the grain is cribbed, the floor of the barn or crib should be covered over with green leaves and stems of the China tree, and then as the grain is put in the crib to the depth of a foot there should be another thin layer of leaves and stems, and at the depth of another foot another layer of leaves and stems, and so on, until the grain is all cribbed.

I am sure this is a remedy which requires no labor in comparison to its value; and the China tree is a growth to be found in almost any Southern State. I have tried this remedy for a number of years, and never without success. It matters not if the weevil gets in the grain before it is cribbed, as this mode of cribbing will drive them out. The weevils get in the most of the Texas corn before it is gathered.

I will give you another instance of the value of the China tree. Bacon, while curing, smoked with the dry leaves, stems and berries of this valuable tree, will prevent skippers. This looks almost absurd as well as incredible, but, nevertheless, it is a matter of fact, authenticated by personal experience, and not mere rumor.

All that is necessary is, while smoking your meat after it is hung up, occasionally throw on the fire a handful of either the leaves, stem or berries, or a few of each, and keep this up for the ordinary length of time of smoking meat.

I will further remark, that this mode of smoking gives the meat no unpleasant taste.

X.

Flowerdale, Texas, June, 1859.

NOELE THOUGHTS.—I never found vanity in a noble nature nor humility in an unworthy mind. Of all trees I observe that God hath chosen the vine—a low plant that creeps upon the holy wall; of all beasts, the soft and patient lamb; of all fowls, the soft and guileless dove. When God appeared to Moses it was not in the lofty cedar, nor the spreading palm, but a bush, an humble, abject bush. As if he would, by these selections, check the conceited arrogance of man. Nothing produceth love like humility; nothing hate, like pride.

**TO AMERICAN WOMEN----THE PROPERLY
Qualified Housewife.**

MISS CATHARINE M. SEDGWICK gives utterance to the following sensible views upon the proper education of our daughters:

Many parents expect their daughters to marry and thus be provided for; the daughters themselves expect it. But it may be well for both parent and child to consider the chances against the provision. Marriage may come, and a life of pecuniary adversity, or a widowhood of penury may follow; or marriage may not come at all. As civilization (so called) goes on, multiplying wants, and converting luxuries into necessities, the number of single women fearfully increases, and is in greatest proportion where there is most refinement, whereby women are least qualified to take care of themselves.

In the simple lives of our ancestors, men were not deterred from marriage by the difficulty of meeting the expense of their families. Their wives were helpmates. If they could not earn bread they could make it. If they could not comprehend the "rights of women," they practiced her "uties." If they did not study political economy and algebra, they knew the calculation by which "the penny saved is the penny gained." Instead of waiting to be served by costly and wasteful Milesians, they "looked well to the ways of their household, and ate not the bread of idleness." The puritan wife did not ask her husband to be decked in French gauds, but was truly,

"The gentle wife who decks his board,
And makes the day to have no night."

In giving the reasons that restrain men from marrying at the present, and thereby diminish the chances of this absolute provision for women, we beg not to be misunderstood. We would not restrict women to the humble offices of maternal existence. The best instructed and most thoroughly accomplished women we have ever known, have best understood and practised the saving arts of domestic life.

If parents, from pride, or prejudice, or honest judgment, refuse to provide their daughters with a profession or trade, by which their independence may be secured; if they persist in throwing them on one chance; if daughters themselves persevere in trusting to this "neck-or-nothing" fate, then let them be qualified in that act and craft in which their grandmothers, and which is now, more than any preceding time, the necessary and bounden duty of every American wife, whatever be her condition.

Never by women in any civilization was this art so needed, for never, we believe, were there such obstructions to prosperity and comfort as exist in our domestic service. And how are the young women of the luxurious classes prepared to meet them? How are the women of the middle classes fitted to overcome them? And how are the poorer class trained to rejoice in their exemption from them?

If a parent look forward to provision by marriage for his daughter, he should at least qualify her for that condition, and be ashamed to give her to her husband unless she is able to manage her house, to educate her children, to nurse her sick, and to train her servants—the inevitable destiny of American housewives. If she can do all this well, she is a productive partner, and, as Madame Bodichon says, does as much for the support of her household as her husband.

It may, or may not be the duty of a mother to educate her children in a technical sense. But if her husband is straining every nerve to support his family, it would be both relief and help if she could save him the immense expense of our first-rate schools, or the cost of governess.

If she is skilled in the art of nursing, she may stave off the fearful bill of the physician.

If she knew the cost and necessary consumption of provision, the keeping of accounts, and, in short, the whole art and mystery of domestic economy, she will not only preserve her husband from an immense amount of harassing care, but secure to him the safety, blessing, and honor of living within his means.

If she be a *qualified housewife*, the great burden, perplexity, and misery of house-keeping, from the rising to the setting sun, from our Canadian frontier to far South of Mason & Dixon's Line, will be—we will not say overcome, but most greatly diminished.

FASHIONABLE WOMEN.

FASHION kills more women than toil and sorrow. Obedience to fashion is a greater transgression of the laws of woman's nature, a greater injury to her physical and mental constitution, than the hardships of poverty and neglect. The slavewoman at her tasks will live and grow old, and see two or three generations of her mistresses fade and pass away. The washerwoman with scarce a ray of hope to cheer her in her toils, will live to see all her fashionable sisters die around her. The kitchenmaid is hearty and strong, while her lady has to be nursed like a sick baby. It is a sad truth that fashion-pampered women are almost worthless for all the great ends of human life. They have but little force of character; they have still less power of moral will, and quite as little physical energy. They live for no great purpose in life; they accomplish no worthy ends. They are only doll-forms in the hands of milliners and servants, to be dressed and fed to order. They dress nobody, bless nobody, and save nobody. They write no books and set no examples of virtue and womanly life. If they rear children, servants and nurses do all, save to conceive and give them birth. And when reared, what are they? What do they amount to, but weaker scions of the stock? Who ever heard of a fashionable woman's child exhibiting any virtue or power of mind, for which it became eminent? Read the biographies of our great and good men and women. Not one of them had a fashionable mother. They nearly all sprang from strong minded women, who had about as little to do with fashion, as with the changing clouds.

MAKING FENCE-POSTS DURABLE.—All posts will rot, sooner or later, and no method will put off the period of decay very long. Yet something can be done. Charring the lower end before setting it, is not labor lost although it must be remembered that the charring process often cracks the timber, and so allows the moisture to penetrate the post and thus induce decay. Boring small holes near the ground, and filling them with salt once a year, is sometimes recommended. Perhaps the salt thus introduced, and diffused through the wood, may retard decay, but we cannot, from theory or observation, vouch for such results. Coating the lower end and six inches above the ground with coal-gas tar answers a good purpose, and is, we think, the cheapest and most effectual.

A correspondent suggests soaking the lower ends in a solution of blue vitriol, (sulphate of copper)—all that will dissolve in water—and says that this has been used with success on shingles, spouts, bean-poles, and wood in other forms exposed to the weather. We do not understand the chemical action of such a fluid, but it may be good for fence-posts for ought we know.—*American Agriculturist.*

The Boston *Traveller* says, with great truth, that "It is easier to get twenty good writers than one good editor." The fact is not, however, generally appreciated.

"SOILING."

THIS term is used to denote the practice of confining animals to stalls or yards, during summer, and feeding them with green food, cut daily, such as corn, millet, oats, sugar cane, clover, lucerne, turnips, etc. This mode of feeding is extensively practised in England, but though frequently recommended, has not met with much favor here. The advantages claimed are: that food is thus consumed with less waste; that there is a great increase in the amount of good manure saved; that the animals are less exposed to the heat of the sun, and to flies and other insects; that a larger proportion of the food goes to the production of fat, muscles and milk, when the animals are kept quiet; that much less fencing is required; and, as the greatest consideration, the same quantity of land will furnish food for two or three times as many animals, when the quicker growing and larger plants, like corn, etc., are raised, instead of the common pasture grasses. These considerations are sufficient to recommend a more general adoption of the practice in some parts of the country—as near the larger cities, where land is very valuable. But under ordinary circumstances the additional cost of gathering the food daily, would exceed the rental of additional pasture land enough to keep the animals. The manure saved by soiling is not clear gain, for this is distributed over the land in grazing. The advantages of keeping animals quiet, are probably lost in vigor, for the exercise taken in grazing is hardly enough to waste much flesh, while it must promote good health.

But every farmer should practice "soiling" to a limited degree at one season of the year, viz: in mid-summer, when the usual grasses are parched and dried. Under the best circumstances there are always a few weeks of comparatively poor pasturage in July or August, and just then every enterprising, thoughtful farmer will have a bountiful supply of some succulent crop ready to cut and feed out in daily rations, in the stable or fields. Not only will the better yield of milk, and the greater vigor of working animals amply repay the cost at once, but all kinds of stock thus provided for at the most trying seasons, will go into fall pasturage in good condition, and be ready to lay in fat and flesh against the winter.

In "fly time" it will be found advantageous to shut up cattle and horses in dark stalls, during that part of the day when insects are most troublesome, and let cut, green food take the place of pasturage.

Corn or Chinese sugar cane planted in drills, and millet, oats, etc., sown broadcast, are among the best crops for soiling. If planted or sown in small plots at intervals of four to eight days, a longer succession of green food will be secured.—*American Agriculturist.*

SATAN'S MARKS IN THE SWINE.—A few days since, ongoing into my backyard where a freshly killed pig had just been hung up, a man who knew I was curious in such matters, said, "There, now, there's the mark as Satan made in the herd of swine before they ran down the cliff into the sea," pointing to five dark marks on the skin of the inside of each fore leg. On my questioning him, he assured me he had never seen a pig without them (I have since looked at five and they had the same); and he said the tradition was that all swine had them ever since the casting out of the devils which destroyed the herd in the sea. My queries are, does this mark always exist? How do anatomists account for it?—*Notes and Queries.*

HOG CHOLERA.—Make a strong solution of Blue Stone, soak the Corn in it—say twelve hours; feed your hogs with it—and all that will eat freely of it, will recover from the cholera. So says a Jefferson county farmer.—*Sandersville Georgian.*

TEXAS—A GREAT COUNTRY.—The Reverend Bishop Pierce, of the Methodist Episcopal Church, South, gives the following picture of the state of Texas:

Texas is a curious country—a paradox. Everything is in the superlative, or contradictory, or marvelous. It is the richest and the poorest—has the best land and the meanest water; is the hardest country to live in, and has the most to live on; the days are the hottest, and the nights the coolest; here are the most rivers, and the least waters; the best roads and the slowest travel; the finest building material, and the least use made of it; there are more clouds, and less rain; more plains, and less timber; more ropes to tie horses, and yet more estrays; a poor country for farming and yet the most productive; the least work and the largest yield; the horses are small and the cattle big; the frogs have horns and the rabbits have ears like mules; the people are intelligent without general education—inventive without being tricky—refined without mannerism—rich without money—hospitable without houses—bold, generous and brave. In fine, here is an empire in extent and resources, but in the slowest process of evolution, and yet destined to population, wealth and power. There is much to admire, but little to deplore; many things to enchant, but few to offend; and for the people and their institutions there is a splendid future.

THE TRUE PHILOSOPHY.—On a sultry, hot summer day, an honest old man was plowing his field, when suddenly he beheld a godlike figure, slowly approaching him. The man started back. 'I am Solomon,' said the phantom, in a confiding voice. 'What art thou doing here, old man?'—If thou art Solomon,' was the reply, 'how cans't thou ask me? When I was a youth thou didst send me to the ant; I saw its method of living, and taught me to be diligent, industrious, and gather the superfluous for a stormy day. What I then learnt, I still continue to do.' 'Thou hast studied thy lesson but half,' replied the spirit; 'go once more to the ant, and learn from it also how to find rest and quiet in the winter of thy years, and how to enjoy that which thou hast hoarded up.'

Bricks that will float used to be made years ago, but the art has been lost until recently. A Monsieur Fabroni has, it is said, discovered their composition, which is said to be fifty-five parts of siliceous earth, fifteen of Magnesia, fourteen of water, twelve of alumina, three of lime, and one of iron. They are infusible, and will float in water though one-twentieth part of common clay be added to them. They resist water, unite perfectly with lime and are subject to no change from heat or cold. They are nearly as strong as common brick, though only about one-sixth as heavy or considerably lighter than water. They are such poor conductors of heat one end may be heated red hot while the other end is held in the hand.—*Exchange paper.*

PORK—HOW MUCH TO A BUSHEL OF CORN.—J. B. Cross, of East Highgate, Vt., paid \$1.50 for a pig, one-fourth Suffolk to three-fourths native, of 7 pounds weight, April 10, 1858; fed on milk and slop and 13 1-2 bushels of corn meal, made into pudding, until December 8, and then killed, and weighed 326 pounds of pork. He says:

"The question is not answered, from the fact that I fed some milk, but I have come to the conclusion I got about 22 pounds of pork for every bushel of corn fed. This I think is as much pork as a bushel of corn will make, unless there should be a difference in the breed of hogs. Some think there is, but I have been inclined to think the difference is more in feeding."

**BLIND DITCHES, OR UNDER GROUND
Drains.**

EDITORS SOUTHERN CULTIVATOR—No subject can be more important to the planter than the one under consideration, yet there is scarcely one that has received so little of his attention. It has been the common practice of planters to pursue that suicidal system of wearing out their lands without ever a thought of improving them, or bringing into cultivation the marsh and pond lands (the very best they have), but leaving them a harbor for frogs and reptiles as well as "eyesores" to every lover of order and neatness that passes that way. Now I wish to inform my brother planters that those worse than waste lands can be made, by a small outlay of money or labor, the most productive on the plantation.

Well, how is this to be accomplished? Simply by Blind Ditches, or Under-Ground Drains, and as I have some experience in the matter, I will give your readers what I think the best plan for their construction:

First. Cut a ditch 4 feet wide and 5 feet deep to take off the surface water and to receive that from your blind ditches, then cut the ditches you intend to blind 1 foot wide and 4 feet deep, emptying them into your main ditch. Those ditches should be from 70 to 100 feet apart. After your ditches are cut, place in the bottom 3 poles, leaving a space of two or three inches between them; then place one on top of the other two to prevent the earth from filling up your space. You can then fill up to within 12 or 18 inches of the top with brush, finishing with earth; or, if stones are more convenient, fill up with them instead of poles; or, if you are convenient to a saw mill and it is most convenient to use slabs, your ditch should then be cut 1 foot wide and 3 1-2 deep; then cut a 6 inch trench in the centre of the bottom. You then have a shoulder 3 inches on each side to hold up your slabs; place them in the ditch, letting them rest on the shoulders, and you then have a vent of 6 inches for your water; fill up the ditch with earth and your work is done. Forty-five slabs 20 feet long will make 300 yards of ditch. This is the cheapest and most expeditious plan, as well as most durable (stone excepted).

The advantage of blind over open ditches is, that you cultivate over them, thus saving the time of turning round, cleaning out, &c.; besides, they drain your land as effectually.

I will say, for the encouragement of any person who may wish to try this system of drainage, that, a year or two ago, I had some 10 or 15 acres of wet places in my field, and by making a few of those blind ditches, I have brought them into cultivation, and I have now growing on them as fine corn and cotton as you would wish to see, and that without costing me one dollar in money, and the time I never missed, as this work was done at such times as hands could not be profitably employed at anything else.

Yours truly, M.

South Side, June, 1859.

[For general directions for Draining, with brush, tiles, &c., &c., see an excellent work, entitled "Farm Drainage," noticed in our July number, page 211.—Eds.]

"AGRICULTURAL STATESMANSHIP"—AGAIN.

EDITORS SOUTHERN CULTIVATOR—In behalf of "Randolph," I present my cordial compliments to Dr. F. H. Gordon.

I do not, and did not, doubt his disinterestedness in the matter which he advocates.

We agree in deprecating the evils of class legislation. We differ here.

We seem to regard the chief evil of class legislation as consisting in the fact that it has not held out its hand to Agriculture.

I consider that in accepting the open palm of Government, Agriculture forfeits the only right that class legislation has left her—the right of protest.

I just as sincerely, therefore, protest against a Congressman's sending me a package of seeds (even though they do come up in as wild a form as "Marigolds," and do not eventuate in May-Weed or Florida Coffee), as I protest against the Government of the United States paying a man in Massachusetts a bounty on cod-fish.

If Mr. Gordon believes this Government to be a "Benevolent Society," I can only hope (without wishing him any harm) that he may go to Congress.

If he believes that it is the delegated strength of the People to prevent great evils; and so largely impregnated with human evil itself that it requires no end of looking after—then he agrees with Randolph, and

His friend in the *Cultivator*,

F. O. TICKNOR.

P. S.—I endorse Mr. Gordon's statements as to the excess of benefit conferred by Government on either occupations over Agriculture. I go a great deal farther. I say that to fathom the loss to Southern Agriculture resulting from that very Legislation, his statement is a mile too short.

But shall we endorse the Robbery by asking of the Robber "a great thing"? Shall we not rather take a more imposing attitude, and say, with more emphasis than did Diogenes, "Get out of our sun-shine!"

If Agriculture, with the wit and pith of sixty centuries in her brain and bones, cannot, when *let alone*, stand alone, there is no need, I submit, for governmental aid to emasculate the impotent.*

Torch Hill, Ga., July 1, 1859.

PIP IN CHICKENS—CURE.

EDITORS SOUTHERN CULTIVATOR—I give you below a remedy for the "Pip" in Chickens, which you can, if you see proper, publish for the benefit of "M. R. S." who made inquiry for a remedy in your May number. I have known the remedy applied often and almost always successfully.

It is the tongue that becomes diseased; hence when you discover the chicken has the pip, catch it and take from the under side of the tongue the white, hard covering which sometimes extends back half way the tongue (this can be done with a pin or knife) and then apply a little fine salt and black pepper to the part from which you took the hard covering or pip, and in most cases the chicken will be well in a very short time.

A. B. C.

Belmont, Ala., 1859.

*It is quoted as an instance of the profound political insight of Artaxerxes, King of Persia, that he published the aphorism that "all taxation rests ultimately on Agriculture."

The wit of the discovery is less wonderful than the royal integrity that told of it; and both are eclipsed by the singular inference that he draws from it; that, therefore, the taxer ought to "foster" the taxee! Ought, indeed, not exactly to keep his hands out of ye farmer's pockets, but to leave him a little by way of nest-egg; or even to "foster" him in a severe case, by *paying him a little back*: Which, I take it, is the sum and substance of Governmental aid to Agriculture.

The "old man" must ride. If he rides *easy* and don't spur, it is all we ask, and more than we expect.

As for Agricultural *Conventions*, are they not in permanent session, all the year round, and all the world over? Have they not their *organs*, too? Speak for us, *Cultivator*!

**LETTER FROM DAVID DICKSON--THE USE
of Guano.**

A short time since we received from Dr. JARRETT, of Mars Bluff, S. C., a letter of inquiry as to some points in DAVID DICKSON's mode of using manures. This letter of inquiry was immediately forwarded to Mr. DICKSON, who has promptly and satisfactorily replied to it. Mr. DICKSON's letter was written prior to his having been informed of the uniting of the *South Countryman* with the *Southern Cultivator*. We are greatly obliged for Mr. DICKSON's kind appreciation of our labors, and hope the interest expressed by him in the *South Countryman* will find just cause for increase in the superior opportunities for usefulness afforded in the more extended sphere of the *Southern Cultivator*. There is no good reason why the *Southern Cultivator* should not receive the patronage of which Mr. DICKSON speaks. It would even then be much less than that of some other Agricultural journals. The *Michigan Farmer* has 10,000 subscribers in that young State alone. The *Genesee Farmer* issues between 30,000 and 40,000 copies. Perhaps there are others with a still larger circulation. We take this opportunity suggested by Mr. DICKSON's remark, to offer the request that the friends of the journals now united will make this union an occasion of a special effort to extend the circulation of the *Southern Cultivator*. We ought to have at the South an Agricultural journal of the highest character. At the very low rate at which these journals are charged, it is impossible that they can attain this character without a large subscription list. One or two names sent by each one of the present subscribers would go very far towards this result. A short ride to a neighbor's dwelling, or a few moments conversation with some one to whom the subject has not been presented, may give one a place in a general movement which shall favorably and powerfully affect the Agriculture of the South. The large possibility is surely worth the small effort.

H.

SPARTA, GA., July 1st, 1859.

REV. C. W. HOWARD—*Dear Sir:*—You wish me to answer the following points in your correspondent's letter. He does not seem to understand what I meant by saying I had not used the same quantity of guano per acre any two years. I commenced using 75 lbs., and have gradually increased the quantity each year up to the present time to 175 lbs. per acre for cotton; 75 to 100 lbs. per acre for corn; 75 to 125 lbs. for wheat and oats; 400 lbs. for turnips and potatoes. Mr. JARRET wishes to know how I get the 5 per cent. of potash in the land plaster. Mr. Samuel Sands, of Baltimore, Md., as I stated in a previous letter, is my agent, and whatever I wish in the way of fertilizers, I order from him. Mr. Sands will have any per cent. of potash added to land plaster that you wish. Mr. Jarret wishes to know why I recommend using guano free for cotton. It is because cotton is the best paying crop. Using guano for cotton the last of March and first of April; commence selling cotton in September—in 6 to 9 months you will have the money invested in guano back with the profits. 2d. Cotton does not exhaust land. There is very little inorganic matter sold annually from a cotton field—the principal loss in making cotton is the clean culture, the soil washing off and leaching by heavy rains.

Guano is a partial remedy for that—it will lessen the

season of plowing two to three weeks, by making the cotton that much more forward and producing double the quantity of litter to plow in for the next crop, in leaves, cotton stalks, seeds, &c., which will protect the land the second year somewhat.

By using guano free you may curtail the number of acres cultivated.

To get the full benefit of guano, land must be rested, to grow weeds and accumulate vegetable mould. Also use it on the pea crop for the same purpose.

Peruvian guano, under a bad system, will exhaust land. The mixture I recommended, which was published in the *South Countryman*, under a good system will make land rich.

The use of guano is objected to by some thinking it lessens the interest in home-made manure. It should be made the means of doubling the home-made manure, increasing the cotton seed one-third, doubling the wheat and oat straw, producing twice the quantity of weeds when land is at rest, and double the quantity of peas and vines, and the more of all such manures produced and saved, the better guano will pay. I am in favor of making the land produce double what it does now, instead of doubling the number of slaves by the importation of wild Africans. Double the productiveness of the land, and it will be worth four times the present value. Double the number of slaves and the price will depreciate one-half.

You are laboring hard, and to the point, in the *South Countryman*. There is one more subject I would like for you to embrace. We want more manure, and the cities of Georgia can furnish part of it in Super-Phosphate of Lime and Poudrette and add greatly to the health of the places. Cannot you induce some persons to undertake it?

The planters of the South ought to take at least 20,000 copies of your paper; and, rather than your enterprise should fail, you may set me down for ten numbers.

Those who wish to be well posted upon the guano trade, should take S. Sands & Mills' *Rural Register*, Baltimore, Md.—24 numbers per year for one dollar. They will find it a valuable paper.

Yours very truly, DAVID DICKSON.

PEACH TREE WORMS—CHINA BERRIES, &c.

EDITORS SOUTHERN CULTIVATOR—I forgot, a day or two past, when I wrote, to inquire of you what time of the year Mr. "V. S." of Charleston, puts in the China berries about his Peach trees to prevent borers. I feel much interested in it, as I have lost almost half of my trees after trying several, in fact, I think all of the remedies. The best I have tried is cutting them out, but it is hard to find them all. If we seal them with ley or put on strong white wash it is almost impossible to reach all. I have tried cutting out all I could find and filling the holes with wet snuff, but tobacco has no effect on them, even if they are soaked in it. I will, this season, try a preparation of tar or spirits of turpentine, as I have not heard of it being tried. I expect it will kill the tree, but I have some two or three seedlings that don't get ripe, but are the thirstiest trees I have. You will please let us hear, if you can, about the right time of putting the China berries in.

Last winter there was some gentlemen, near this place, purchased considerable quantities of Peach trees for planting, the only difficulty was the dread of the borer.

Yours truly, E. C. HOLLEMAN.
Eufaula, Ala., July, 1859.

[Will our friend "VAL." reply to the above, at his earliest convenience?]

"AGRICULTURAL FAIR."—A Farmer's pretty daughters.

Domestic Economy and Recipes.**VALUABLE RECIPES.**

EDITORS SOUTHERN CULTIVATOR—Having never seen the following recipes in print, I send them to the *Cultivator*, and if you see proper you can give them a place in your columns:

FOR FOUL FOOT IN HORSES.

Take one tablespoonful of copperas; one tablespoonful strong ley soap (soft); one tablespoonful of Urine. Mix so as to make paste, and apply it about every three hours; and in twenty-four hours your horse will be able to go to work. It should be done as soon as the disease is discovered. I have never known it to fail in a single case, and I have tried it in a dozen or more.

BOTS, OR GRUBS IN HORSES.

Make a strong tea of mullen, by boiling, and drench the animal with a quart of it. It will cure without fail. I give this for the benefit of God's most noble animal—next to man.

Respectfully, L. T. C.

Union Parish, La., June, 1859.

REMEDY FOR DISTEMPER IN DOGS.

EDITORS SOUTHERN CULTIVATOR—A teaspoonful of powdered Lobelia infused in half a teacupful of hot water. Let it stand until cool, and then give as a drench. I had a pup 6 months old taken with distemper, and gave him up to die. In a week or more two dogs—one of them a favorite pointer and the other a cross between a pointer and half blood hound, (an excellent cross)—commenced sneezing and running at the nose. As I did not wish to lose all my dogs, I thought I would try something. I commenced by giving the puppy (who was, by this time, bad off) the dose of Lobelia mentioned above. The next day he appeared more lively. Thinking that the Lobelia had become too weak from having been on hand a long time, I procured some that was fresh, and repeated the dose; at the same time giving a similar drench to each of the other dogs. The dose was too strong for the puppy in his then reduced state, and he died—his death hastened, perhaps, by the over dose, as lobelia is powerful in its effects and leaves the patient very much prostrated. On the other dogs it acted like a charm. In two days every symptom of the disease disappeared in them—they were cured and remained so.

I do not say that the remedy is infallible. I have tried it in no other cases, nor have I heard of any other trying it—I give my experience merely; believing, however, from that little experience, that there is virtue in lobelia for distemper. Will not some others try it and publish the results of their trials?

C. E. D.

PRESERVING DRIED FRUIT.

A lady subscriber, of Camden, Ark., sends us the following:

EDITORS SOUTHERN CULTIVATOR—In your June number I notice a preventive to worms in dried fruit, by mixing sassafras bark with it. For the benefit of your readers who may not be aware of it, I send a more convenient and effectual remedy.

The eggs being deposited in the fruit during the process of drying may be destroyed by simply heating the fruit in an oven, just enough to destroy them. It should be immediately packed away.

I have followed this plan for several years, and have had no fruit with worms in it. I have reference to sun-dried fruit which I think preferable to kiln-dried.

A HOUSEKEEPER.

DOMESTIC RECIPES.

Mr. Editor—As I have received a number of valuable recipes from the household department of your paper, and have been very much profited by them, I have concluded to send a few that I have tried, and found to be good, and that I have not seen in your columns:

Sponge Cake.—Take the yolks of five eggs, the white of one, half a pound of sugar, one teacupful of water; beat sugar, eggs, and water together, until thick as pound cake, then add 6 oz. of flour.

Delicate Cake.—The whites of four eggs, left from the sponge cake, half a cup of butter, one of sugar, half a cup of sweet milk, with half a teacupful of soda in one cup, and a half of flour, add one teaspoonful of cream of tartar.

Potato Muffins.—One pint of milk, six large potatoes mashed, one egg, a dessert spoonful of butter, and one gill of good yeast.

Yours respectfully, E. B.,

[in Germantown Telegraph.]

Lower-Merion, June, 1859.

TOMATOES IN A NEW FASHION.—As the tomato season is here, the following method of preparing them for the table we are assured by one who has made the experiment, is superior to anything yet discovered for the preparation of that excellent article:—Take good ripe tomatoes, cut them in slices, and sprinkle over them finely pulverised white sugar, then add claret wine sufficient to cover them. Tomatoes are sometimes prepared in this way with diluted vinegar, but the claret wine imparts to them a more pleasant flavor, more nearly resembling the strawberry than anything else.—*Germantown Telegraph.*

How to Cook VEGETABLE EGG.—Take the egg off the vine when soft. Cut it in thin slices. Take three hen's eggs, beat them well; put on your pan with a spoonful of butter or lard; then pour about half your beaten egg over them; let them cool a little—turn them, and add the balance of your beaten egg. Let them cook until soft, and they are then ready for the table. Send them to the table hot.—*Germantown Telegraph.*

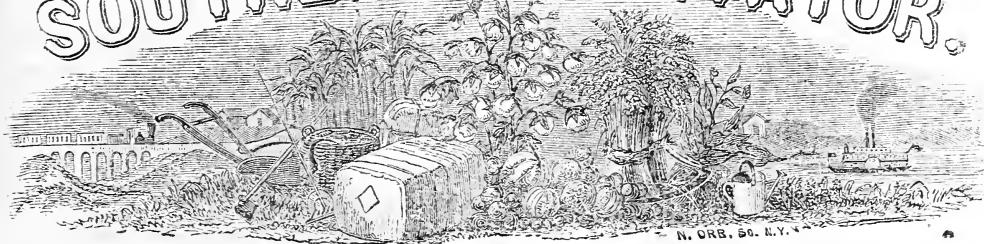
FRUIT PIES.—The acid in fruit pies may be neutralized by adding to each as much carbonate of soda as will cover a twenty-five cent piece. This simple precaution, which does not affect the flavor of the fruit, will prevent much sickness, and save much sugar, otherwise needed to render the sour sweet.—*Scientific American.*

BLUING FOR CLOTHES.—*Better and cheaper than Indigo.*—Take 1 oz. of soft Prussian blue, powder it and put it in a bottle with 1 quart of clear rain water, and add 1-4 ounce of oxalic acid. A tea-spoonful is sufficient for a large washing.

HOW TO MAKE GOOD YEAST.—Make a decoction of hops by taking two handfuls of hops and pouring on them three pints of boiling water; boil this down to a quart, and then strain. To the liquid add one tablespoonful of ground ginger, one of common salt, and two of molasses or brown sugar; then stir in wheat flour enough to make it of the consistency of bread-rising. Let this stand until cool, then add a teacupful of yeast; keep it in a warm place until it rises, then set in a cold place as a vault or cellar.

* In the hottest weather of summer I have often kept yeast made as above, perfectly sweet for three weeks. Those who are bothered with sour yeast, or who make it every week, would save much time and trouble by trying the above. Do not forget the *consistence*, as the great fault with many is, they have it too thin and watery.—*Germantown Telegraph.*

SOUTHERN CULTIVATOR



N. GRB. 50. N.Y.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XVII.

AUGUSTA, GA., SEPTEMBER, 1859.

NO. 9.

WILLIAM S. JONES, Publisher.

D. REDMOND and C. W. HOWARD, Editors.

See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—As soon as Cotton begins to open freely, it must be gathered without delay. Avoid picking immediately after a shower, lest the lint should be foul. See that your Gin and Press are in complete order, and send no cotton to market that has not received the most careful handling throughout.

Cow Peas should be gathered and put away during the brief intervals of leisure from cotton picking. The vines of late planted Peas may also be cut when the pod is just forming, and cured for hay. Carefully save seed of all valuable sorts.

Corn may be cut up and saved, as directed in our last number, page 225.

Winter Oats, Rye, Barley, Clover and Lucerne may be sown the latter part of this month.

Turnips, for a fall crop, must now be sown, without delay. Ruta Baga, Yellow Aberdeen, Norfolk, Early Flat Dutch, Globe, and Strap Leaf Red Top Turnips, are all valuable varieties—the two first being the best for stock and keeping. See directions for sowing Turnips, in our last.

Hay.—In addition to the Corn-stalk and unpulled fodder spoken of in our last, (page 225) Sweet Potato vines and tops of Pindars make a tolerable rough forage, if cut and cured before they begin to wither. All Crab (or Crop) Grass, Crowfoot and other grasses, must be cut when in blossom, and carefully cured, with as little exposure to the sun as possible, to be of any value for hay. The dried up and withered grass often pulled for hay, late in the season, is almost utterly valueless.

Wet land may now be drained, woodlands prepared for pasture, weeds and brush grubbed up, &c., &c., as directed heretofore.

Winter Forage.—As a green crop, try Wheat, sown thick in three feet drills, on deeply plowed and rich land. It will give your animals green food nearly all winter, and bear repeated cuttings.

THE GARDEN.—Turnips, of all kinds, if not already sown, must be put in without delay. (See directions in August number in regard to this and other gardening operations.)

Strawberry Beds may be prepared and the plants set out any time during the fall. A cool moist soil, rich in vegetable matter suits this fruit best in our sultry climate. Spade or trench-plow the ground as deeply as possible, turning under a plentiful supply of swamp muck, decomposed leaves, wood ashes, pulverized charcoal, and a little well rotted stable manure. Harrow or rake the surface until it is perfectly fine and even, and set your plants in 3 foot rows, 1 foot to 18 inches in the row. When the plants are well rooted, cover the entire surface of the ground with partially decomposed forest leaves, only permitting the plants to be exposed. By this method with an occasional watering next summer, in dry weather, (and the proper selection of varieties) this delicious and healthy fruit may be raised abundantly from 3 to 5 months in the year, for family use and for market. It can be safely transported 500 miles per railroad,* and has even been sent from Georgia to New York, in excellent condition. It is, in all respects, one of our most attractive and profitable fruit crops, and we hope it will receive increased attention hereafter. Some of the choicest varieties are Wilson's Albany, Hovey's Seedling, McAvoy's Superior, Longworth's Prolific, Walker's Seedling, Peabody's Hautbois, Crimson Cone, Early Prolific, &c.

McAvoy's Extra Red, the Crescent Seedling, Black Prince, Iowa, Jenny Lind, Scott's Seedling, Trollope's Victoria, Boyden's Seedling, Smythe's, and other varieties may be tried by amateurs.

THE FRUIT ORCHARD.—New land, elevated and not too rich, is most suitable for Orchards, and to those who have neither the time or the means to grub up and entirely clear the ground before planting, we suggest the following plan for speedily replacing a forest with a productive Peach or Apple orchard: Cut off all wood and brush very clean, early in the fall, burning to ashes all the logs that you cannot remove, and leaving all stumps very low. Then

*See articles, in present number, headed "Fruit—Transporting to market," &c.—Eds.

stake off your land the proper distances, and dig holes six feet across and two feet deep, throwing the surface mould on one side and the subsoil on the other. Rake into the bottom of the hole a bushel or more of the surrounding loose, top soil, leaves, &c.; fill up to the proper height with the surface soil first thrown out, and plant your tree carefully, heaping up the subsoil slightly about the trunk and over the roots, to allow for the natural settling of the earth. Your tree being now planted and furnished with a supply of food in the hole, immediately within its reach, the after culture may be as follows: The first spring, early, plow and cross-plow the young orchard with long rooters, keeping beyond the holes in which the trees are planted, and carefully avoiding all injury to the trunk or branches. Sow Cow Peas broadcast in the open spaces between the trees, and keep the earth loose and mulch about the roots with a pronged hoe. If mulching material can be obtained, apply it thickly after the first hoing, as far as the roots of the trees extend. This will abviate the necessity of any further working for the season. When the Peas ripen, pick and save them, turning the vines under, and sow another crop, to be gathered in the same manner. These repeated plowings and cross-plowings, with the abundant supply of nutritive matter furnished by the decomposing Pea vines, and an occasional dressing of ashes, will insure the most vigorous and healthy growth of the trees, and force them into early and prolific bearing. Other low crops, such as Sweet Potatoes and Pindars, may afterwards be grown profitably in the orchard, and the vines returned to the soil as above recommended. We confidently recommend a trial of this plan to those who desire the quickest and most satisfactory return for their labor in fruit raising, and who have no old land elevated enough, or otherwise suitable. November and December are the best months for planting trees. Particular directions for planting Trees, Grape Vines, &c., in our next.

AGRICULTURAL COLLEGES.

PAST experience has taught us that the people of the South will do their duty as to the education of their children, so far as they understand in what that duty consists. It is not unusual to hear them spoken of disparagingly in connection with this subject. They are sometimes charged with indifference to the great cause of education. This is both an error and an injustice. In its relation to the poorer classes, the subject of general education is environed with great difficulty. A thinly scattered white population and a dense black population, are the chief causes of this difficulty. For the last 20 or 30 years grave and thoughtful attention on the part of our most distinguished men has been devoted to this important subject, but, as yet, without satisfactory results.

The attention bestowed upon the establishment of schools of a high order for the instruction of youth of both sexes has been extraordinary. Not so much in the amount of patronage bestowed by our Legislatures as in the liberality of private donations. It is customary to praise the attention given in New England to education. The praise is not undeserved. Yet we very much doubt if there be a State in New England, in which the private contributions to the cause of education have been as liberal within the last 30 years as in the State of Georgia. In a lecture before the Historical Society, the venerable President of our State University stated that within a very few years upwards of \$600,000 had been contributed by

private persons in Georgia to the cause of education. This lecture was delivered prior to the establishment of any of the Female Colleges of the State, possibly with the exception of the College at Macon. There are now 17 of these Female colleges in Georgia. With the additional institutions for the instruction of males, we cannot doubt that more than \$600,000 have been contributed to this cause since the period to which we have referred. Perhaps an equal attention has been given to the subject of education in the other Southern States—we have not the means of information as to what has been done in them.

Sufficient regard has been paid to the creation of Seminaries for collegiate and professional education. Possibly this attention may have been in excess—not as to the amount given, but as to the number of institutions established. If the friends of the different male colleges, especially the religious bodies by which the most of them are controlled, will consider the amount of the investment and the number of pupils and then count the cost to that body of each graduate, they will be surprised and may be lead to inquire if this large expenditure of private munificence may not be made to affect a greater number of youth.

As a means of preparation for professional life or elegant leisure our institutions are, perhaps, all that could be expected. They are built on the old models and to accomplish a purpose which remains unchanged in the flight of years.

The great truths of Christianity are the same “yesterday, to-day and forever.” They are unchangeable as their author. The fundamental principles of law, which has been called the “Harmony of the Spheres”—of law, which governs the planets and the mote in the sunbeam, and which, in its elucidation, application and improvement in the complicity of human affairs, has engrossed so large a share of human intellect, are also immutable. The human body in its essential features in all time has submitted to but minor modifications. Ethical and mental science are subject ever to the same unchanging rules. The pages of Grecian and Roman eloquence are the unaltered embodiments of the intellectual strength of the great masters of antiquity. As the end in view in classical and professional education is unchanged, the course of education remains unchanged.

But the business of the world is ever changing. New countries and new climates are being opened up to civilized man. New articles of commerce are brought into use and unaccustomed commercial relations established. Within this century new sciences have been born and some of them matured. Extraordinary practical applications of the useful arts have been made. Information is more indispensable to success in many of the most important pursuits, the necessity for which thirty years since did not exist. As a consequence, the education which fits for literary or professional life does not necessarily prepare for the stirring occupations of the present day. Yet, academic and collegiate education has not changed. Latin and Greek and Greek and Latin are still as prominent and are as industriously flogged into our sons now as they were flogged into our ancestors at Eton or Westminster 150 years ago.

We do not wish to be regarded as an enemy to the

classics. By no means. He is an ill-tempered devil, who, having himself drunk from the Pierian spring, would debar others from slaking their thirst from the same crystal waters. But the classics, while they are indispensable to professional life, are the accomplishments of general education. They are the capital which gracefully crowns the attic column. They are the key which unlock the portals, giving admission into the "High communion of scholars." They are the polish which gives a beauteous lustre to improved mind. And as such, whenever time and means allow, they should be studied with a just reference to the future of the student.

A very small proportion of the youth passing through a course of academic or collegiate education permanently devote themselves to professional life. A few years of their earlier manhood may be occupied by a profession, but finding the many of wealth or distinction pre-occupied by others, the profession is abandoned and another pursuit is adopted.

A very large number of our students become planters or farmers. The planter's son passes from the Rostrum to the cotton field. If he were destined for the ministry, he would study three years at a Theological Seminary. If he were designed for the bar, he would pursue his legal studies either in the office of some distinguished lawyer or at a law school. If it were his intention to become a physician, he would attend the lectures, and if his means allowed he would walk the hospitals at Dublin or Paris. But as he is to be a mere planter or farmer, no novitiate is deemed necessary. His Latin and Greek, and Mathematics and Belles Lettres are sufficient preparation for the management of negroes, the composition of manures and the growth of stock, grain and cotton.

The embarrassments of young men who inherit planting estates are sometimes painful from want of proper preparation. A graduate of one of our collegiate institutions enters upon the management of his estate. If he wishes to arrange the books of the estate, he must call in a book-keeper. If an unknown insect is destroying his crops, he must consult an Entomologist. If he wishes to learn the name and habits of a new plant, he must obtain the information from a Botanist. If he wishes to determine the name of a variety of fruit new to him, he must enquire of a Pomologist. If he wishes to extend a cherished variety by grafting, he must send for a Nurseryman. If he wishes to ascertain the deficiency in an unfruitful part of his soil, he must submit a specimen to a Chemist. If he wishes to know the extent of a field, he must employ a surveyor. If he wishes to run a level for embankment or irrigation, he must employ an Engineer. He finds himself at a loss in almost every part of the large interest he is called upon to manage and control.

The education of every young man should be materially modified by the occupation for which he is designed. If he is to be a planter, his education should be directed chiefly to those studies a knowledge of which will fit him for his calling.

It may be said that the Georgia University proposes to do this through the Terrell Agricultural Professorship. We fear that this valuable bequest, even though sustained by the acknowledged ability of the present Professor, will fail to answer the end proposed by the noble gentleman, whose memory will ever be cherished in Georgia. We very much doubt, if it be possible to unite at this day and at the same point a full course of classical and Agricultural education. And for this reason, our young men seem to have but little idea of distinction, save through the power of oratory, or of eloquent composition. Their classic studies are, for the most part, the orations, and poems of antiquity. The Societies foster the general tendency of the institution. The natural sciences are frequently undervalued. In short, the elements of study and character, which go to make a painstaking and successful

planter, are generally considered tame, spiritless and ignoble.

We conceive that the difficulty can be easily removed. The original scheme of education in Georgia is most admirable. We believe that the honor of its suggestion and elaboration is chiefly due to Gen. JAMES JACKSON. That original plan confines the University to no one particular place. The University includes the whole system of education, as patronized and supported by the State. In this plan, the University supplies to any practical and valuable scheme in its President, who is a Regent of Education, and to whose supervision the whole subject is committed. With the Collegiate Institutions at Athens, an Agricultural and Industrial School might be established at another point, a Law School at another, and a Medical School at another—all under the general supervision of the President and Trustees of the University.

The limits of this paper will not allow a sketch of the course of study which might be pursued at the Agricultural Department of the University. Should the subject prove to be one of interest, such a sketch, based upon the systems pursued in the best European schools, will be prepared.

If the State can be induced to establish an Experimental Farm, worked by negroes, which would also be the site of its Agricultural Museum and Fair, this point should be the location of one of the agricultural schools. The expense of education here might be high, as it would involve continued outlay. Planters would not hesitate to meet this expense, for the advantages would be unusually great. In the absence of similar Institutions in our country we have been compelled to advise some of our friends to send their sons to Grignon, in France, which advice has been followed.

There is another form of Agricultural and Industrial school which is still more needed than one of the kind suggested. That is an Institution designed especially to supply us with a race of educated overseers and mechanics and common school teachers. Parts of the South suffer almost as much from absenteeism as Ireland. In the absence of the proprietors, large gangs of negroes, immortal beings, are sometimes committed to the almost sole management of ignorant men whose minds are not only dark, but whose moral sense has never felt the power of elevating association. The interests of the planter suffer—the cause of agriculture suffers. When the planter lives on his plantation, the overseer is "a third estate" which it is often very difficult to manage without detriment. The proprietor fears to undertake an improvement, as he is practically ignorant, and it is often the case that an overseer, undervaluing it as an item of book farming, will assuredly fail to carry it out, even if he have the necessary intelligence.

Every planter will at once feel the advantage which it would be to him if, when he wanted a young man to manage his affairs, there were an Institution to whose officers he might write, state the character needed, and find his necessities promptly supplied. The overseers of the country are a class. They form an important interest. They correspond to the bailiffs or land stewards of England—men thoroughly educated as to all that appertains to their business. If it were not for these men who unite "Science with Practice," the prodigious advance of English Agriculture would be at once arrested. It is to us at the South a measure of the highest interest in our social economy to elevate this important class of persons. We are compelled to deal hastily with this interesting topic. It is hoped that its suggestion will awaken attention.

We need superior facilities of education to be placed within the reach of those poor young men who design to become mechanics. The time was, when we spoke of a mechanic, that we thought only of a man who could shoo-

a horse, or lay a plow, or dress a plank, or frame a house. And it was supposed that education would be of little service to him. But how changed is now our estimate of the position of a mechanic. "Science has put on the leather apron" and strikes with the hammer. Our steam-ships, railroads, mines, foundries and machine shops require not only dexterity in the use of tools, but inventive, executive and financial ability. The person who can manage the affairs of one of the huge establishments to which these industries give rise, is qualified to manage affairs of State. Yet he must commence with his apprenticeship, and an educated apprenticeship is indispensable to ultimate and extended success. It is the possibility of these large operations requiring varied and cultivated mental power, which has changed the aspect of mechanical pursuits.

We need, also, a provision for the education of poor young men as teachers of our common schools. If the State could build "the brick school house" in every militia district, and if scholars waited at their doors for admission, we have not the teachers in sufficient numbers. Of those who offer as teachers, a great number are shamefully disqualified. If the subject were not too grave for ridicule, some of the richest scenes of comedy would be offered in a number of the examinations before the School Committees of the counties.

There is a gap between the common school and a complete business education which the poor boy cannot fill. Our cities offer an exception—we are speaking of the country at large. When the poor boy has learned all that is taught in the country, he must stop in the requisition of knowledge through an instructor. He cannot go to College—it is too expensive and there is no other opportunity of a higher education besides that which the College affords. Whatever be his aspirations, he must rest in his ignorance.

If the State would endow an Institution, say in each Judicial Circuit, each of which should be part of the University—if each of these institutions were provided with a farm and workshops—if no pupil were admitted under 16 years of age, so that his labor would be valuable—if no pupil were retained whose labor on the farm or in the shop were not equivalent at least for his board, leaving his tuition to be paid from the funds of the Institution, then education would be within the reach of multitudes of the poor who are now excluded from it. Within a very short time after the establishment of such institutions, their utmost limits would not contain the applicants for admission.

Such schools would be chiefly agricultural, but also answering the other two purposes referred to. The topics of this article are so numerous that they have been barely touched. We offer it as suggestive. We ask comment on the views expressed. We invite discussion of the whole subject of agricultural and business education.

Mr. MARTIN has made a handsome commencement of one of the forms of Farm School of which we have spoken. But no private individual can, without assistance, completely carry out such an enterprise. We trust he will receive the powerful support which the merits of his Institution will justify.

It is hoped that our next Legislature will take up this subject. In what way can the funds of the State be more usefully employed than by putting it in the power of poor young men to obtain an education, not as pensioners upon the charity of the State, but by means of their own labor? Such an education would be less a dependance upon public bounty than a course at West Point.

Iowa now expends \$15,000 per annum for agriculture; Massachusetts, \$12,000; New York, \$8,000. This is apart from the amounts given to Agricultural Education.

For one Institution Michigan has given, through her Legislature, nearly \$100,000. The sums given by several other States is large.

What has Georgia done? What has the South done by Legislative appropriations for agricultural education? So far as we are informed, nothing. Yet every one will grant, leaving out of consideration the planters themselves, if we had a body of overseers who, added to their present practical experience, were thoroughly informed in all that pertains to their calling, the wealth of the South would be increased by millions of dollars.

New York agreed to give an equal amount for an Agricultural School to that which might be privately contributed. The offer was met and the People's College is the result. Two gentlemen in Georgia have offered to give \$1000 each, for the establishment of an Agricultural College, if one hundred men will do the same. If this hundred can be made up, the State will be ashamed not to equal the liberality of her private citizens. The subject is one of absorbing interest, as it concerns not only the development of the resources of a country which God has favored and man has scourged, but also the unlocking of the fetters which imprison the minds of indigent youth, and enabling them, whether from the mountains, the middle county or the seaboard, to go free to work out the great purposes of their destiny.

We trust that no imperfection of phraseology on our part, will induce an opinion in the mind of any one that we are hostile to our existing Collegiate Institutions. They answer their end. There is still another end to be met growing out of the change which parts of our social structure have undergone during the last half century. This is a speciality not provided for in the old system of education. Let the people of the South see to it that this end is met by the exercise to the limit of prudence of private and legislative liberality.

Since the completion of the above article on Agricultural Education, there has been sent us a catalogue of the students of the Oglethorpe University, including the course of study in that Institution. There is great similarity in the course of study in all of our colleges. From one, we may then learn all. We ask the grave attention of gentlemen who wish their sons to be educated with a reference to Plantation Life. If they are destined for a profession this course is an excellent one. But if they are to be planters, miners, merchants, machinists or civil engineers, what portion of this course bears upon their future pursuits? Observe the large share of attention bestowed upon the sciences capable of practical application to agriculture. The classics are studied in every term of the four years' course. Ancient and Modern History and the Modern Languages are wholly omitted. Mineralogy, Physiology, Book-Keeping, and Drawing are also omitted. Chemistry is studied during two terms of the Senior year, Botany during one term of the Junior year. A young man who masters this course will be an elegant Belles Lettres scholar. He will have laid the foundations for literary success in either of the professions, or in any pursuit requiring the accomplished use of the pen or the tongue. But it will have taught him at the same time rather to undervalue than rightly to estimate those branches of knowledge which are most important to the country gentleman. The Catalogue before us affords a subject of profound study. It suggests questions of great interest. It establishes the position, that while our Collegiate Institutions are worthy of patronage in their relation to professional and literary life, other Institutions, preparing our youth for the practice of Scientific Agriculture, are demanded by the most urgent necessity. It will be observed that out of the forty-four studies of the four years' course, twenty are Latin and Greek authors. The whole of the first two years are devoted to the Classics

and Mathematics, with the single exception of Antiquities:

COURSE OF STUDY.

FRESHMAN CLASS.

First Term.

| | |
|------------------|---|
| Greek..... | <i>Xenophon's Anabasis.</i> |
| Latin..... | <i>Cicero de Amicitia and de Senectute.</i> |
| Mathematics..... | <i>Algebra, (Davies' Bourdon.)</i> |

Second Term.

| | |
|------------------|-------------------------------|
| Greek..... | <i>Xenophon's Cyropaedia.</i> |
| Latin..... | <i>Cicero de Officis.</i> |
| Mathematics..... | <i>Algebra, (completed)</i> |

Third Term.

| | |
|-----------------|--|
| Greek.... | <i>Herodotus and Thucydides, (Græca Majora.)</i> |
| Latin.... | <i>Horace's Odes.</i> |
| Mathematics.... | <i>Geometry (Davies' Legendre.)</i> |

SOPHOMORE CLASS.

First Term.

| | |
|-----------------|--|
| Greek.... | <i>Lysias and Isocrates, (Græca Majora.)</i> |
| Latin.... | <i>Horace's Satires.</i> |
| Mathematics.... | <i>Geometry, (completed.)</i> |

Second Term.

| | |
|--------------|---|
| Greek.... | <i>Demosthenes' Orations, (Græca Majora.)</i> |
| Latin.... | <i>Horace's Epistles and Art of Poetry.</i> |
| Mathematics. | <i>Davies' Plane Trigonometry & Mensuration</i> |

Third Term.

| | |
|---------------|--|
| Greek.... | <i>Homer's Odyssey.</i> |
| Latin.... | <i>Livy.</i> |
| Mathematics.. | <i>Davies' Spherical Trigon. Sur'ng, (begun)</i> |

Bojesen's Roman and Grecian Antiquities throughout the year.

JUNIOR CLASS.

First Term.

| | |
|-------------------------|---|
| Greek.... | <i>Plato's Crito.</i> |
| Latin.... | <i>Cicero de Oratore.</i> |
| Mathematics.. | <i>Surveying and Navigation, (completed.)</i> |
| | <i>Analytical Geometry, (begun.)</i> |
| Natural Philosophy..... | <i>Olmsted.</i> |
| Rhetoric..... | <i>Blair.</i> |

Second Term.

| | |
|-------------------------|-------------------------------------|
| Greek.... | <i>Xenophon's Memorabilia.</i> |
| Latin.... | <i>Cicero de Oratore.</i> |
| Mathematics..... | <i>Davies' Analytical Geometry.</i> |
| Natural Philosophy..... | <i>Olmsted.</i> |
| Rhetoric..... | <i>Campbell.</i> |
| Logic..... | <i>Hedge.</i> |

Third Term.

| | |
|--------------------------------|--|
| Greek.... | <i>Longinus.</i> |
| Latin.... | <i>Cicero de Oratore.</i> |
| Mathematics.. | <i>Davies' Differential and Integral Calculus.</i> |
| Botany..... | <i>Gray.</i> |
| Evidences of Christianity..... | <i>Alexander.</i> |

SENIOR CLASS.

First Term.

| | |
|-------------------------|--------------------|
| Latin.... | <i>Quintilian.</i> |
| Astronomy..... | <i>Olmsted.</i> |
| Chemistry. | |
| Moral Philosophy. | |
| Constitutional Law..... | <i>Sheppard.</i> |

Second Term.

| | |
|--------------------|--------------------------|
| Greek.... | <i>OEdipus Tyrannus.</i> |
| Astroñomy..... | <i>Olmsted.</i> |
| Christianity. | |
| Geology. | |
| Mental Philosophy. | |

Third Term.

General Review.

HANCOCK COUNTY FARMING, AGAIN.

EDITORS SOUTHERN CULTIVATOR—In reply to my friend Robinson, of Oglethorpe, who makes a very handsome appeal to certain Hancock farmers to let the balance of mankind know "their superior mode of cultivating corn and cotton," I must, as the call is made upon me (with others) by name (though not of late much given to newspaper corresponding) say a word or two.

I say it, and not boastfully, that my friend is right when he supposes that there is "light" down here, and he is wrong when he supposes that we keep it covered under a bushel.

And, before I go one step further, I will tell him how we let it shine, and how he may fall within the blessed influence of one or more of its genial rays. If he will look in the October number of *DeBow's Review* for 1858 he will find a copy of the Constitution of our Planter's Club. Take a copy of it—call a meeting of your Planters—organize a Society upon its plan. Have at least annual meetings—appoint a delegation to visit and correspond with our Club and we will reciprocate the favor—come and mingle with us—see the spirit and determination amongst us to improve our homes and comforts—to elevate and enoble our calling—and if he does not imbibe some of that spirit and carry it home with him and impart it to his associates, neighbors and friends—then he does not deserve the benefit of the light he seeks, and I may be set down for an unmitigated humbug, while truth compels me to say it is the opinion generally entertained of me and my farming by those best acquainted with both.

There is one fact to which those from a distance, who make us agreeable annual visits at our fairs, will bear willing testimony; it is, that there is an absorbing and deep interest felt by *owners of land* and negroes here in the *modus operandi*, as my friend calls it—in the mode, means and expenses and implements of our tillage, that is rarely to be met with. All owners of land and negroes and especially the large owners who live apart from their plantations, feel an absorbing interest in the profits and net dividend of their investment, and what is to be much regretted, they feel an interest in dividends alone. It is not from such that you are to look for improvements in tillage—in manures, in implements. It is to men who live on their farms, and who, though they have overseers, personally witness and superintend the entire management of their farms that we are to look for improvements. It is a valuable element in our Hancock farming, that we have but few absentees—and the want of a Railroad has learnt the mass of them to make themselves comfortable at home during the summer—by the way, staying at home is one of their most profitable crops, and improves all the other crops. Property, too, is about as equally distributed among our people as, under our laws of inheritance, it can probably ever be.

It is, then, readily perceived that we have the elements here, if anywhere, of achieving high culture and profitable culture for slave labor if these elements can be combined and organized, and the proper spirit of improvement and progress imparted to the organization. I assert again, the fact that this interest in all improvement, this spirit of progress, is deeply felt here. It may be seen by the casual observer in the numberless country colleges, mansions, gardens and orchards, with all the unmistakable signs of taste, comfort and plenty all around them. It is seen in the red Devons and the roan Durhams, which may be found everywhere in the place once occupied by the ring-streaked, spotted, dappled and bony. It is seen in the neat horizontal tillage instead of the rows that ten years ago went straight across the field up and down hill. It is seen in the drainage of our creek and branch low lands. It is seen in our home-made plows

A beautiful form is better than a beautiful face; a beautiful behavior is better than a beautiful form; it gives a higher pleasure than statues or pictures, it is the finest of the five arts.

which have banished the Yankee Boston Blue Mason & Ruggles from our farms. No one can mistake it—the spirit of progress is here, and if the problem, whether slave labor can be made profitable and the value and fertility of the land cultivated at the same time sustained and preserved (not to say improved) is ever solved, it will be done here. That is what many of us, who have firmly planted our hearthstones in old Hancock, are working for. We would be glad to learn that Oglethorpe and every other county, especially of this charming Hill country of Middle Georgia, had formed a league for the same holy, noble purpose.

But whence came this spirit of progress amongst us? I am perfectly willing that any man here and elsewhere shall answer this question for himself. I speak only for myself when I say that it is attributable to that little Society that began its existence some fifteen years ago with a very few members and that has now grown so large that it holds its meetings out of doors. This society brought planters together, and, when together, they will talk of farming, if it is only to brag. It liberaliz'd their views. It made them think, and, not unfrequently, the error of one would suggest to another the truth in a matter. I cannot recount the innumerable benefits of it. In its early history it was much scorned and ridiculed; its members encountered jeers, epithets—"humbugs," "book farmers," "Corn Buyer's Association," were among the gentler terms applied to them. But it has survived it all.

Many of its founders have rested from their labors—Burwell Wynn, Wm. Terrell, Richard Sassnett, Mark Gonder and Joel Crawford, and many of their co-laborers have gone home—but to-day there remains many proud witnesses to the truth that "their works do follow them."

The Planter's Club of Hancock has become a fixed fact. In its earlier years it had difficulties. They all grew out of the error of attempting to sustain such an institution by levying annual taxes or contributions upon the members *only* for funds to pay its premiums and contingent expenses. It was at first looked upon as beneath the character of any Society, especially a society of farmers, to levy ten or twenty cents at the door from each visitor to its exhibitions. One of the stormiest debates the Club ever had was on a motion to charge every man, woman and child, ten cents for admission to the Fair. The motion was lost. But of late years we have adopted that policy, and we readily raise money enough to cover all expenses. Thus has our Club become a permanent institution. Not only that, it has become an essential institution among us. It is the great annual festival day and thanksgiving of our whole people. The fourth of July in its best days and a whig barbecue in the Harrison campaign ain't a circumstance by the side of it. Come down and see the thing next October. If you wish to see our crops and tillage in full glory, why just drop me a line any time in the month of August or September, when to meet you at Union Point. You can take breakfast there and dinner at Babywake and spend what time you please in looking at the farms of Bonner, Harris, Whitten, Ponce, the brag farms of Shoulderbone, (*I would not have you mention it on any account*—I can beat the whole of them. In a half a day from here I can put you down at Dixon's, and the general opinion is that you will not—need not—desire to go any further. There you'll see the elephant.

I think it essential, for the accomplishment of your objects, that you should visit us. If ever, with the most graceful and graphic pen, I should attempt what you request, there would still be much of important details that I should forget or fail to convey in such exactness of expression as to give you the true impression intended. If I were to attempt description a of our agricultural tools, I should fail, because you must see the tool itself or a very

perfect diagram in order to appreciate it. If I were to ride with you up to one of Dixon's fields where his teams were plowing you would think that the man had imported a ship load of camels, and that his cotton sweeps were the old fashioned cow-catchers of the engines of the Georgia Railroad; and when you saw the "glory of" David, you would feel like the Queen of the South when she saw the glory of Solomon, and exclaim that the half had not been told you.

There is another section of an entirely different and distinctive geological formation from those mentioned—the part of the county on the waters of Buffalo. Its farms are highly valued by the owners. They, perhaps, talk less and do more than all of us. They don't dream of selling out. In fact, they say, whether they mean it or not, that they are already in "California." It is in this section that the improved residences—Lancaster (Judge Thomas), Glenmary (T. J. Smith's), and Joe Gonder's, and others are found—and Smith's is the place which makes two and a half cents better cotton than any upland ever sold in Savannah.

There is still another interesting section of the county well worth visiting; and, though I have not lately seen it, I feel safe in saying, upon the authority of my neighbor, James M. Harrison, that the farms there are well worthy of honorable mention—I allude to the section in which are found the farms of Dr. Alfriend and Tuttle H. Audas, Esq. I am sure you would be pleased with them; for as well as I can understand, they are conducted very much upon my system—the *purely scientific*.

I ought to allude to the portions of the county which lie upon the Oconee and Ogeechee Rivers respectively. They farm it upon the "still hunting" policy. They stay much at home—work diligently—sometimes we don't see or hear of them till the Fair, and then they come up and get their share of premiums. This is especially the case with the Ogeechee section. Unfortunately for those of their fellow-citizens whom they leave behind them I cannot speak so confidently as to Island Creek and the Oconee section, several of whose valaed residents have gone West, and many others, I hear, are preparing to leave, and still others desire to leave who have not made that needful preparation of selling out. The Western fever has been fatal, *only* in this section of our country. I cannot but pause to express the regret that the spirit of change should so invade one of the oldest, best, most moral and religious communities I ever knew. To one who, though not of them, has had many opportunities of partaking of the whole-souled hospitality of these people, it looks strange, indeed, that those who have, at any time lived within the high social influences that have prevailed there for half a century, and have inevitably formed the social attachments incident to such influences, can so readily consent to part asunder forever such blessed ties, and to execute, *in advance*, the inevitable decree that "the places which have known them shall know them no more forever." I know it costs them a struggle to bid adieu to that old altar at Island Creek, which has stood there long enough to have witnessed the conversion of the fathers as well as the children of the emigrants—and may all the blessings which good men deserve ever attend them.

But I return from this unintended digression, only to repeat, that my friend, Mr. Robinson, must come to see me. If he will not and cannot, why, if he will make out and submit to me his "interrogatories," with the names of the farmers upon whom he wishes them served, I will execute them—have them answered and returned to him in quite a *lawyer-like* style—for, if he must know, I am considered, by my neighbors, quite as good a Lawyer as I am a farmer.

I have thus, Messrs. Editors, attempted to relieve myself from the very embarrassing position in which some of

my friends thought I was placed by the communication
of my friend from Oglethorpe.

L.

Babyake, July 13, 1859.

GUANO---REPLY TO J. M. MERIWETHER.

EDITORS SOUTHERN CULTIVATOR—In the June number of the *Cultivator*, Mr. J. M. Meriwether writes an article on the subject of Guano as an exhauster of the land, in which he takes the negative side of that question, particularly in reference to potash, soda and magnesia. He seems to found this opinion in reference to potash particularly, on the assumption that the most perfect barren sand, at the depth of six inches, contains thirty tons of potash per acre. This may be true of some soils, and possibly is of the coast of Peru, where guano has produced such good results for so long a period; but there are many soils in this and other countries, where, in 1000 parts only a trace of potash is found. In soils of this character, guano cannot supply all the demands of the soil for certain crops, as wheat, for instance, because more potash is required for this crop than guano supplies to the soil. Prof. Johnston, the great agricultural chemist, of England, says that "the only ingredient in which guano is manifestly defective is potash, of which it usually contains less than one per cent." Other chemists, however, have found in may samples a deficiency in phosphoric acid, that ingredient so essential to cotton as well as wheat. In either case the deficiency is fatal to the manure as an ameliorator of the soil, particularly in the rural districts of the South.

In England, where the bones of all animals except man are saved and ground in mills for agricultural purposes, the phosphoric acid can be easily supplied and their soils abound in potash, from the geological formations of the country, as well as the fact that every particle of potash from wood ashes and other sources, are saved and applied to their soils. Here many of our soils are very deficient in this salt, particularly those sandy lands in which the guano has been mostly applied. The planters who have used it for years in this section are beginning already to see the need of something above and beyond the simple ammoniacal guanos of Peru. Hence, Mr. David Dickson recommends, in his letter to the *South Countryman*, a combination of the phosphoric with the other guano, and an addition of gypsum mixed with potash to supply the deficiencies of the Peruvian guano. We have no objection to this mixture only its cost, which will run up to some seven or eight dollars per acre, used as Mr. Dickson recommends. He had better apply it, however, and make smaller profits than use commercial guano alone.

Notwithstanding the assertion of your Arskansas correspondent, we find, from actual analysis, as well as practical experiments, that the great deficiency of our worn out soils in Middle Georgia is lime, potash and ammonia. Two of them is supplied by guano, the other is not. We do not pretend that this potash has been exhausted from the soil simply by the removal of crops, for much more has gone down into the depths beneath, by the leaching rains of this climate, particularly in sandy alluvial soils. But it is not there; and the only means we have to reach it is by turning out these old fields to a rest of thirty or forty years, that the old field pine may send down its tap roots and bring up the potash in its leaves and drop them on the surface. Even after this friendly intervention of nature the potash only lasts a few years when cultivated again before it is gone, either in crops or to the subsoil. But on all these lands a good supply of po ash in the shape of wood ashes, makes a manifest improvement for years.

But even in soils where there may be thirty tons of potash per acre, on a chemical analysis it may be barren,

from the fact that it is insoluble, and, consequently, unfit for the food of plants. Any amount of pulverised or disintegrated felspar, which contains much potash, may be put on the soil deficient in potash, and not produce a particle of effect, because it is insoluble; while the same amount in wood ashes would be very mainfest. It takes years for these inorganic compounds to be fit for the food of the higher forms of plants. They must first pass through the lichens, ferns and other lower order of plants before they can be appropriated by the higher. There is another principle in chemical physiology of which your correspondent seems forgetful, that so important a salt as potash, in order to perfect a soil, must not only be present, but ubiquitous in that soil; so that every grain must contain a portion, however minute, in order that each little mouth of the feeders may have a portion to take up. If not, an imperfect grain will be the result. Hence, a soil which, upon analysis, will be found to have potash in it, may be greatly improved by adding more, because it is not so abundant as to supply the wants of the growing plants. And a manure, like guano, which makes a great draught upon the soil, and takes up more potash than it puts down, will, together with the leaching rains of this climate, gradually exhaust the soil of potash, without which no perfect grain can be produced in any soil.

According to an analysis of Dr. Jackson, for every 1000 lbs. of cotton fibre received from a soil, 2.79 lbs. of potash are extracted. For every 1000 lbs. of the seed, over 13 lbs. of potash are taken. The leaves and stalks yield about 16 lbs. to the 1000. Our guano farmers boast of making from 1500 to 2000 lbs. of cotton per acre in the seed. At the rate of 2000 lbs., there would be removed in lint about 1 1-2 lbs. of potash, and in cotton seed about 19 1-2 lbs., being 21 lbs. per acre—to say nothing of the leaves and stalks eaten and carried off by cattle. Allowing that a portion of the seed is returned for manure—still saying nothing of that lost by leaching—we find a constant drain going on of this essential salt, which will, we fear, under the cotton culture, do for our lands what it has already done for some of the Middle States. Many planters in Maryland and Virginia have ceased to buy it, because it has ceased to pay them in wheat as it formerly did. If, however, the stalks, leaves and seed of cotton are returned to the soil, the abstraction of potash will be very little more than contained in the guano, and might be rendered back, as suggested by Mr. Dickson, without adding a great deal to the cost.

Mr. Meriwether makes a *far-fetched* argument from the sterile sands along the coast of Peru, which, he says, has produced fine crops of corn for ages. Admitted, but they have to apply much larger quantities than we do, say from 3 to 4 cwt. per acre. It has been found that 1 cwt. will not produce remunerating crops; besides Indian corn does not make such a draught upon the soil as either cotton or wheat. But another fact in reference to the climate of Peru, and other countries where it never rains, the salts of the soil are never lost by leaching, but on the contrary, especially in deep sandy soils, such as referred to, the drying effect of the climate, causing an evaporation of the water from many feet below the surface, which brings up the salts in such quantities at times, as to whiten the surface of the ground. One fact in our climate is worth a thousand at so great a distance. We will give one as an offset to this. In the fall of 1857 we applied 185 lbs. of guano to an acre of poor soil, about one eighth of which was very much impoverished. The crop of wheat averaged well on the other portions, but on this, there was almost a perfect failure. The present year we put it in Indian corn and applied a mixture of guano and bone dust, but it is still barren, or nearly so; showing, in our humble opinion, a lack of potash or other salts, which the guano does not supply in sufficient quantities to make perfect grain.

It appears that the importation of guano into England has been falling off since 1845, which constituted the highest point, viz: for that year 283,300 tons; in 1851 it was 245,016, and in 1855 only 151,333 tons for England and the Continent. The average each year, for four years, ending with 1848, was 139,713; the four next years, 129,198 tons. We doubt not it has reached its point of culmination in this country, viz: 51,253 tons, unless, as we sincerely hope, it may prove a more profitable fertilizer for cotton than anything else.

E. M. PENDLETON.

Sparta, Ga., 1859.

FISH PONDS IN GEORGIA.

EDITORS SOUTHERN CULTIVATOR—Much has been said, written and accomplished in Germany and France on the subject of Artificial Fish Culture; and, I am happy to say, that this truly interesting matter is beginning to receive in this country, that attention which its importance so justly merits.

My pleasures of hope have been fully realized in this department of the economy of Plantation Life; and I cannot imagine anything connected with my rural home that has contributed more to my happiness than my "Yellow Lake," "Lake Como," and "Loch Lomond."

The last named pond contains fifteen splendid Trout, weighing each from one to four pounds, which were captured by the aid of a seine. These Trout are beautifully striped, and present a handsome appearance, and are altogether different from the Brook Trout, so beautifully spoken of by Dr. Garlic, in his work on Fish Culture. The doctor is wild with delight when speaking of his "Naiad Queen," the nautical name given to a splendid specimen of the Brook Trout.

Now, I have no objections to his praises; but, on the contrary, admire him for his romance; but, at the same time, I must be allowed to feel that, though he has made his Queen so gentle as to be able to handle her at pleasure and carry her from place to place, I can (although it has been but three weeks since I obtained my pets) call them up within three feet of me, and they will follow me around the pond. A toad, lizard, large tadpole or small fish will be instantly seized and swallowed.

A Trout at two years old will produce 600 eggs, and at the age of three years old 800 eggs. My "Loch Lomond" contains Bream, White Perch, Yellow Belly Perch, Red Horse, Mullet and Suckers, none of which were put into that "Loch" more than 6 weeks ago; yet I can now show at least 10,000 small fish, many of which are supposed to be young Shad from the eggs of a Shad taken in the Oconee River.

Gehin and Remy, two poor and illiterate fishermen of France, claim the origin of artificially producing fish, and their success induced the government of France to pay them \$6000 per annum. The Legislature of the State of New York has passed a law compelling each fisherman in that State to deposit the spawn of six fish in the streams in which they are accustomed to catch fish, in the presence of a Magistrate.

Gehin and Remy obtained the spawn of the female fish by pressure on the belly, and in the same way the milt or semen of the male, both of which were caught in vessels of clean water, and from 3,200,000 eggs of the Trout they produced 1,682,000 living fish. They obtained from one of their ponds, for distribution in the rivers of France, 1200 Trout in one year of the two year-olds; and the same men placed in the Moretelle River 50,000 fish in one year.

In my opinion, the Trout is the most splendid fish that swims in our waters; and on account of the great esteem in which he is held by myself I shall devote more attention to its culture. They are very voracious. A

Trout of two years old has been known to swallow one of one year old. I remember to have seen, many years ago, a splendid specimen of the Trout caught in a seine below Augusta, which had swallowed a Shad and the tail of the latter was extending out of the mouth of the former. Yesterday, while standing on the banks of Loch Lomond feeding my Trout, I saw one of ten inches in length, or one year old, swallow a Stone-toater or Honeyhead, of four inches in length, whose tail extended from the mouth of the Trout.

My Lake and Lochs are supplied by springs of pure and limpid water, within their banks, and the stream from one of them supplies the stock in the horse lot with clean running water. Fish work very hard to obtain gravel for their beds, and will convey them some distance and place them with care in the bottoms of them.

When on their beds fish are quite gentle and will allow persons to approach to within a foot of them. In fact, I have heard, from good authority, of a large Perch that would jump out of the pond at any one who might venture to approach too near its domicil; and I have found somewhere in the sea of my reading, this singular little incident: "A gentleman in one of the German States who possessed a fish pond, observed, in one of his rambles around his pond, a large Perch cutting up a great many antics while running before him, and finally spring out on the bank. This induced the gentleman to take up the fish, on doing which, he found that a splinter of wood had entered the eye of the fish. On withdrawing the piece of wood he placed the Perch in the water, and it 'walked' the water like a thing of life."

My attentions are now being bestowed upon a new pond of the following dimensions: 75 feet by 125 feet, with a depth of 6 feet. The name of this will be "Loch Leven," in honor of "Mary Queen of Scots," who was imprisoned in the Castle of "Loch Leven," and who, surrounded by her Maids of Honor, "the Catherine's," and who tried to soothe her captivity, whiled away their time in the same kind of needle work so fashionable at the present day.

It has now been about 14 months since I built my first pond, and now I have three, with a fourth nearly complete. I estimate my fish by the million, many of which are, of course, very small yet. I expect to raise to the length of 10 inches, this year, ten thousand Trout.

JOHN C. CARMICHAEL.

Greensboro, June 1st, 1859.

WINGER'S SCRAPER---"NO GO."

EDITORS SOUTHERN CULTIVATOR—"In the midst of deserved wrath" Winger's Scraper has "obtained mercy!" And if anybody don't believe it, let them read your worthy correspondent's recommendation of it, and then try it, and they will be convinced of the fact. I have tried Winger's Scraper, and my opinion is simply this: th' t it will do where there is nothing to do; but just use it "fore and aft" in the scraping of your cotton, and if you don't throw it over the fence I shall always think you ought to have done it. It is a double scraper, as you have been informed, scraping both sides of the row at the same time, and if it comes in contact with any obstruction on either side of the cotton row, one or the other scraper is thrown into the cotton and cuts it up, of course. Don't take my word for it—just try it.

If you want the best Scraper on the top side of the globe get Yost's Plow and Scraper. Don't take my word for it—just try it.

Yours, &c.,

G. D. HARMON.

Compromise Place, La., 1859.

 Hear no ill of a friend, nor speak any of an enemy; believe not all you hear, and appear what you are.

**GEN. WASHINGTON AND GOVERNMENTAL
Aid to Agriculture.**

It is, by many persons, questioned if our General Government has the constitutional power to make appropriations for the benefit of Agriculture. Not raising, the question of power, it is doubted by others if it be sound policy in our State Governments to appropriate a portion of the State Funds for the same purpose. We do not suppose that any of the readers of this journal are of the latter class. The man who has sufficient intelligence to induce him to take an agricultural paper, needs not to be told that the interest which underlies all other industrial interests should receive the fostering care of the Government of the State. Those whose minds are satisfied on this point should endeavor to convince other. Our Legislatures should be reached through the expressed and concurrent sentiment of the people. In order to furnish our readers with a means of removing the scruples of others, we extract an article from the *Quarterly Journal of Agriculture*, prepared by B. P. POORE, Esq., and giving the position taken by the "Father of his country" upon this important subject:

"In the 'President's Speech,' delivered on the 7th of December, 1796, when Washington met the two Houses of Congress for the last time, he said:

"It will not be doubted that, with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population, and other circumstances of maturity, this truth becomes more apparent, and renders the cultivation of the soil more and more an object of public patronage. Institutions for promoting it grow up, supported by the public purse; and to what object can it be dedicated with greater propriety? Among the means which have been employed to this end, none have been attended with greater success than the establishments of Boards, composed of proper characters, charged with collecting and diffusing information, and enabled by premiums, and small pecuniary aids, to encourage and assist a spirit of discovery and improvement. This species of establishment contributes doubly to the increase of improvement, by stimulating to enterprise and experiment, and by drawing to a common centre the result everywhere of individual skill and observation, and spreading them thence over the whole nation. Experience accordingly has shown that they are very cheap instruments of immense national benefit."*

A few days afterwards, on the 10th of December, Gen. Washington acknowledged the receipt of the letter from Sir John Sinclair containing the suggestion quoted above, and stating that the rapidly closing scenes of his political life left him but little time to devote to Agricultural matters. "I did not however," he wrote, "omit the occasion, at the opening of the session, to call the attention of that body to the importance of agriculture. What will be the result, I know not at present; but if it should be favorable, the hints which you will have in your power to give, cannot fail of being gratefully received by the members who may constitute that Board."

That General Washington took a deep interest in the adoption of his recommendation, and that he was anxious to enlist prominent agriculturists, as well as Congress in carrying out his plan, is shown by the following letter, addressed by him to Judge Peters, who had a fac simile of it appended to the second volume of the Transactions

of the Philadelphia Society for the Promotion of Agriculture:

"Dear Sir—Herewith you will not only receive the Outlines, &c., (asked for yesterday,) but the appendix thereto; and other productions from the same quarter; which, when you have done with, be so good as to return.

"These, or some of the Papers, may be of use to a committee, if Congress should incline to take up the subject of Agriculture.

"Your observations, with the return of the papers, will be very acceptable to Dr Sir, Yr. obdt. & Affec.

"G. WASHINGTON.

"10th Decr., 1796.—[Superscribed] Richard Peters, Esq."

The Senate, in an address in answer to the speech, drawn up by Senator Read, of South Carolina, and adopted after having been discussed and amended, said: "The necessity of accelerating the establishment of certain useful manufactures, by the intervention of the Legislative aid and protection, and the encouragement due to agriculture by the creation of Boards, (composed of intelligent individuals,) to patronize this primary pursuit of society, are subjects which will readily engage our most serious attention." No action was, however, taken on the recommendation of the President by the Senate.

The House of Representatives, on going into a Committee of the Whole House on the President's speech—"Resolved, That so much of the President's speech as relates to the promotion of Agriculture, be referred to a select committee, and Mr. Swift, Mr. Gregg, and Mr. Brent, were accordingly appointed." Mr. Swift was an able lawyer from the rural town of Windham, Connecticut; Mr. Gregg, an educated farmer from the interior of Pennsylvania, and Mr. Brent represented an agricultural district in Virginia. They doubtless had before them the papers referred to in General Washington's letter to Judge Peters.

On Wednesday, January 11th, (as we learn from the "Annals of Congress,") "Mr. Swift, from the committee to whom was referred that part of the President's speech relative to the promotion of Agriculture, made a report recommending the institution of a Society for that purpose under the patronage of government, which might act as a common centre to all other societies of a similar kind throughout the United States. No public provision is contemplated except for the salary for a Secretary, and for stationery; but if the state of the Treasury should make even this unavoidable, it is stated, it might be carried into effect without pecuniary aid. The report is accompanied by a plan, the principal articles of which are, that a Society shall be established at the Seat of Government; that it shall comprehend the Legislature of the United States, the Judges, the Secretary of State, the Secretary of the Treasury, the Secretary of War, the Attorney General and such other persons as should choose to become members according to the rules prescribed; that an annual meeting should be held at the seat of Government, at which is to be chosen the President, Secretary, &c., and a Board, to consist of not more than thirty persons, which shall be called the 'Board of Agriculture'; that the Society shall be a body corporate; that a report shall be made annually, &c. The report concluded with a resolution in these words:

"Resolved, That a society for the promotion of agriculture ought to be established at the seat of Government of the United States.

"The report was twice read, and ordered to be committed to a Committee of the Whole on Monday next."

On Monday, the House went into a Committee of the Whole, on the report of the Committee of Ways and Means on the subject of further revenue, and during a prolonged debate as to the necessity for direct taxation,

*Messages of the Presidents of the United States.

there was a conflict of opinion between the representatives of commercial and of agricultural constituencies, which perhaps made the friends of the resolution fearful that it would—if pressed to a vote—be defeated. Besides, it was associated with a recommendation for a Military Academy, which Mr. Jefferson had openly opposed, on the ground that “none of the specific powers given by the Constitution to Congress would authorize it.”*

Three days after the termination of his Presidential career, the 6th of March, 1797, and when about to return to rural life at Mount Vernon, the “haven of his hopes,” General Washington wrote to Sir John Sinclair: “I am sorry to add, that nothing *final* in Congress, has been decided respecting the establishment of a National Board of Agriculture, recommended by me, at the opening of the session. But this did not, I believe, proceed from any disinclination to the measure, but from their limited sitting and a pressure of, what they conceived, more important business. I think it highly probable that next session will bring this matter to maturity.”

These brief extracts show clearly the desire of the “Father of his Country” to see a Central Agricultural Organization established, under the fostering care of the Federal Government, and they call for a conspicuous record on the monument now being erected to his memory, that “the encouragement of Agricultural Improvement and Information, was among the favorite wishes of his heart.”

If the recommendations of Gen. WASHINGTON had been adopted, we will venture to say that in 1859 France would have been sending wheat and flour to America, or England supplying us with wool to assist in clothing our people. Whatever deduction from the weight of Gen. WASHINGTON’s opinion may occur in the minds of some persons, from a difference in their construction of the Constitution, that opinion applies in its full majesty to our State governments. In them it is a question not of power, but of policy. It is not in the American heart to treat lightly a deliberately expressed opinion or cherished wish of the man whose calm wisdom in affairs equalled his distinguished skill in arms. When we ask from our Legislatures, that they should give material aid to agriculture it is fortunate that the just demand may be fortified by the impressive opinion of WASHINGTON; which we quote again and place by itself that it may possess its due weight: “It will not be doubted that with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity, this truth becomes more apparent and renders the cultivation of the soil more and more an object of public patronage. Institutions for promoting it grow up, supported by the public purse; and to what object can it be dedicated with greater propriety?”

*Col John Taylor, of Caroline, in one of his admirable essays signed “Arator,” censured Congress for their action in recommending a society, which he called a “toy for its amusement,” and said: “This toy was found to be unconstitutional, because it would add but little to the power of the general government, and the infant was turned to graze in impoverished fields. The constitution was construed to exclude Congress from the power of fostering agriculture by patents or bounties, and to give it the power of fostering banks and manufactures by patents and bounties.”

DEEP PLOWING—ITS OBJECT.

EDITORS SOUTHERN CULTIVATOR—My observation and experience have satisfied my mind that subsoil plowing is only beneficial under a certain set of circumstances.

Subsoil plowing is not to be resorted to in order, *primarily*, to loosen the land, with any expectation that any beneficial result is *therely* directly obtained. I admit, without any hesitation, that subsoiling is highly useful—indeed, in my judgment, its benefit cannot well be overestimated. But what I wish especially to insist upon is that its benefit to the soil does not consist in making the soil more light or more porous.

In other words, I desire to maintain that the subsoil plow, of itself, cannot make the soil more productive.

I am satisfied that the main—the chief—excellence derivable from subsoiling consists in the atmospheric changes which it occasions in the ground. Hence I subsoil—not simply to subsoil, but in order, by *that means*, to admit the atmosphere. Hence, to subsoil is not a primary object with me. I subsoil for an end, which mere deep plowing of itself can never produce. I subsoil for an object *aside from that operation*.

In other words, were it not for the wealth which the atmosphere holds and which it will lodge in the pores of the earth when these are made ready for it, at the proper season of the year, subsoiling, according to my notion, would be a waste of labor.

In order to show that subsoiling, of itself, does not directly tend to increased productiveness of the seed, let any man plow his land during the winter season however deeply he pleases and cultivate that land, he will find that its productiveness will be in proportion to the depth of the summer plowing. If the summer culture be shallow, the land will answer to it in diminished vegetation; if it be, on the other hand, deep and thorough, a better result will be obtained—a result corresponding to the summer tillage.

If subsoiling were the cause of increased crops, it would answer this end, whenever effected, which it notoriously does not.

The cause of increased crops consequent upon deep plowing is, therefore, not deep plowing, but the gasses generated in the earth by the action of atmosphere in porous land, and taken as food by the plants.

It is better to feed horses in troughs than on the ground—not that troughs cause the increased strength of the horses more than the ground, but that they are better means for the cause. So in regard to subsoiling. By subsoiling rather than surface plowing we institute means for the cause of increased productiveness which is the action of air in porous ground. In other words, the atmosphere introduced to the roots of growing crops of the land causes those crops to grow, *i. e.* is a prime agent in their growth, or vitality. We plow deeply, therefore, as a means, having for our object the introduction of the gasses of the air to the roots of the plants—all life repose on gasses.

If this theory be sound, we are prepared to use the subsoil plow scientifically—to use it, not with reference to the ground, but to the atmosphere.

The ground plowed, may be compared to cups out of which very thirsty men are constrained to drink water. If the cups be small the men get but little water. So, if plowing be shallow, the plants get but small supplies of their peculiar nourishment; if it be deep, the cups are larger, and, as a consequence, larger supplies are at hand. If men plow their lands in the winter very deeply and throw under a large crop of grass and weeds, they will thereby increase the summer results; but why? We think, because of the crop turned under, and not the plowing. I hold winter plowing to be decidedly injurious. Nothing, therefore, can justify it in my estimation, but the addition of some fertilizer plowed in. When you start

your plows have but two objects in view—the grass and the atmosphere—plow to kill grass and plow to form feeding places for the food of the plants—for the gasses to be deposited are gasses that the air generates and which the roots take up.

I have known experienced planters to cry down sub-soil plows and utterly dispense with them, and say that they have tried them effectually and found them of no permanent avail. I have usually accounted for this upon the ground, that they subsoiled at the wrong season of the year.

I take this position:—That the richer the land, the longer is the proportion of the nourishing gasses generated in the ground, and *vice versa*. The air, therefore, will do a better part for rich than for poor land, and hence, with equal culture, the first will outproduce the latter. This being the fact, very high culture, or if you please scientific culture, may be dispensed with on rich land, with less comparative loss than in poor land. In other words, any sort of a planter can make good crops on rich, while it takes scientific farmers to succeed well on poor land.

Now what have those to do who cultivate poor land? They have to force the earth to do for them—or, rather, they have to force the *atmosphere* to do for their poor lands—what it is quite willing to do for land kept naturally porous by foreign ingredients—that is, for rich land.

Originally all land is the same. If, therefore, one soil differs from another the distinction is attributable to factitious ingredients—ingredients that may be called fertilizers. But why so called? In other words, why is rich land, containing, as it does, fertilizing ingredients, that distinguishes it from poor land—more productive than poor lands? Now, very many persons would say it was due, *primarily*, to the ingredients in the land. Not so. Not so by any means. So to think is a capital error. It is due to the atmosphere as the prior agent. *Fertility* comes *to*, and not *from* the ground.

A man having rich land can have fertility carried to his land without much service upon his part. But why? Because his land is *prepared* to receive it. His least culture, the before, will give him large results. His least culture will give the *cause* of the earth's productiveness full opportunity to work its results, which *cause* is wholly *atmospherical*, i. e.: external to the ground. Why do poor lands produce much larger crops—other things being equal—during wet, rather than during very dry seasons? The reason is, assuredly, not that any ingredients of a fertilizing character, have been added to the land, but because the gasses of the air have been enabled to *do their office* better. Wet weather befriends the atmosphere—the gasses go to the roots and the roots more abundantly supply the plants. Let these suggestions be pondered.

W. S. GRAYSON.

Benton, Miss., 1859.

P. S.—If fertility is not *in*, but comes *to* the land, it may be enquired, why does cultivation impoverish it? If fertility comes externally—that is to say, if the growth of crops is traceable to the gasses generated in the soil by the atmosphere—why does the soil under culture seem to lose its fertility? The answer is plain. The cause of fertility, in my opinion, is gaseous or aerial—is of the nature of air. Hence, you may rarify fertility. Hence, by successive washings and dryings, without culture, you may impoverish the richest soil.

Cultivation evaporates or rarifies the fertility of land, but it abstracts none of the soil. Cultivation takes no ground from the land; takes nothing that can be called soil; abstracts no earthy particles. It takes ingredients that belong to the aerial—that may be made gaseous—that may be evaporated. Land properly is insoluble and pulverizable.

The position herein advocated may be easily tested.

Select a piece of very poor land. Cover it so that the sun and rain cannot, while the atmosphere may, reach it, and then occasionally pulverize or make it porous. If, by this process, the land is fertilized, it follows that fertility is gaseous—silica, potash, lime, soda, magnesia, chlorine, &c., are partly insoluble and partly gaseous. It is the air in them that make them fertilizers. What is insoluble is soil, but is not itself fertile.

W. S. G.

NIGHT SOIL.

EDITORS SOUTHERN CULTIVATOR—Will you or any of your contributors give me information through your columns, how to preserve and use Night Soil? As to how it is to be obtained I want no information, and as I am seriously asking for and seeking advice, perhaps a few words of advice to the owners of slaves may be of service to them.

Put up quite enough of privies—let them be convenient—have proper constructed boxes to be removed at least once a week—have the house well cleansed once a week, and, my word for it, you will be amply repaid in cleanliness and in health. Do this and you will never have to threaten a servant for failure to regularly visit them—your servant children 3 years old will regularly visit them.

This article, as a manure, must be superior to the Peruvian Guano or any other article. But how to use it is my inquiry? I am seeking information and earnestly seeking it; and I will remark that I do not think the free use of lime or charcoal will profit; each in different ways will destroy the ammonia, which is very great.

I desire to call the attention of planters and learned men to this subject. It is little understood. Twenty years ago if we had been told that Peruvian Guano, at one teaspoonful to the hill of corn, was more efficacious than one pint of cotton seed, we should have scouted the idea, and yet I am of the opinion that Night Soil has more fertilizing qualities in it than Peruvian Guano. All who shall reduce this subject to a science will, in my opinion, be a public benefactor; at least he shall be deemed so by

Your friend and obedient servant,

JAS. THOMAS.

Hancock County, Ga., 1859.

AGRICULTURAL STATE FAIRS, FOR 1859.

| | |
|--|-------------------|
| Illinois, Freeport..... | September 5, 9. |
| United States, Chicago..... | September 12, 17. |
| Kentucky, Lexington..... | September 13, 17. |
| Vermont, Burlington..... | September 13, 16. |
| Western Virginia, Wheeling Island..... | September 13, 19. |
| New Jersey, Elizabeth..... | September 13, 16. |
| Maine, Augusta..... | September 20, 23. |
| California, Sacramento..... | September 13, 22. |
| Ohio, Zanesville..... | September 20, 23. |
| Nebraska, Nebraska City..... | September 21, 23. |
| Indiana, New Albany..... | September 26, 30. |
| St. Louis, (Mo.) County Fair..... | September 26, 30. |
| Wisconsin, Milwaukee..... | September 26, 30. |
| Pennsylvania, Philadelphia..... | September 27, 30. |
| Iowa, Oskaloosa..... | September 27, 30. |
| Canada West, Kingston..... | September 27, 30. |
| Michigan, Detroit..... | October 4, 7. |
| New York, Albany..... | October 4, 7. |
| New Hampshire, Dover,..... | October 5, 7. |
| Tennessee, Nashville..... | October 5, 7. |
| Georgia, Atlanta..... | October 24, 28. |
| Maryland, Frederick City..... | October 25, 28. |
| Alabama, Montgomery..... | November 15, 18. |

To do good to our enemies is to resemble the incense whose aroma perfumes the fire by which it is consumed.

THE MICROSCOPE AND ITS REVELATIONS.

FROM the introduction to a new work entitled "*The Microscopist's Companion,*" we make the following interesting extracts:

"The microscope opens to the observer a new and unexpected world, full of beauty, perfection, and magnificence; in a single drop of the water it presents to the astonished vision, living creatures, of most beautiful and varied forms, entirely unlike all former conceptions of organic existence, and so extremely minute that it would require from twenty-five thousand to eighty millions to fill the narrow space of one square inch. And yet, as small as they are, the microscope reveals to us their existence, their spontaneous motion, and their external and internal structures; it also makes known the fact that these minute living beings are extremely reproductive, and "constitute the chief proportion of living bodies upon the face of the earth." They are found not only in the fresh water of ponds, brooks, riv'rs, and lakes, but even in the salty waters of the great deep, in some strong acids, in terraqueous matter, and in vegetable and animal fluids; indeed, there is no part of the world, either upon its external surface, or internally, but in which these microscopic beings can be found, either in a living or fossil state. The mortar of the builder, the chalky cliffs of Albion, extensive tracts of country in various parts of the world, as well as chains of mountains, the coral foundation of the Polynesian Archipelagoes, of the reefs and islets of the Indian Ocean, as well as many other places, beside slate, flint, sandstone, limestone, rocks, &c., all contain, and are, in fact, chiefly composed of the remains of once living, invisible animalcules. Of the myriads upon myriads of organized beings created to work out the grand designs of Providence, all calculation seems futile; as the results would be far beyond the grasp of human comprehension. And the remains of these minute animals have added much more to the mass of materials which comprise the exterior crust of the globe, than the bones of elephants, mammoths, hippopotami and whales.

"But the microscope does not terminate its utility here; it is equally necessary and useful to the geologist, the botanist, the mineralogist, the chemist and the physician. To the latter in particular, it has demonstrated the minute structure of parts of the human system, which were previously altogether a mystery, and has assisted in affording a more perfect comprehension of the organic functions. The structure of the various parts of the system has, within a few years past, been thoroughly and correctly made known by the aid of this mighty instrument, so that no man can, at the present day, hold the title of a 'respectable physician,' who is not conversant with its revelations. Nor has its value ceased with a knowledge of the healthy structure; it affords a certainty in the diagnosis or detection of diseases, several of which cannot be correctly determined without it.

"It is no less useful to the non-professional man, and to the community in general, who, by its employment, may frequently learn certain unhealthy conditions of the system, without having immediate recourse to a physician. Thus, the character of urine, as known by its uric acid, its urates, phosphates, exalate of lime, blood-corpuscles, &c., as seen under the microscope, may enable an individual to become aware of changes taking place in the system not consistent with health, at a very early period even before any appreciable symptoms have developed themselves, and thus afford him information which will lead him to adopt a proper course of treatment long before the attack becomes serious or of a permanent nature. Engravings of the most common appearances of the urinary deposits under the microscope, are given in the work to which the reader is referred.

"The non-professional man may also ascertain that many diseases of the skin depend upon, or are accompanied with microscopic vegetable growth, of a fungous or algous character, as ring-worm of the scalp, dow-worm, some aphthous ulcerations of the throat, mouth, &c., and that other diseases again, are accompanied with microscopic animals, as the itch, acarus follicularum, &c. The globules of blood seen under the microscope, appear as numerous 'pale, and red, rough, bi-concave discs, having a tendency to turn upon their edges, and to arrange themselves in rolls like rouleaux of coins; a very few white corpuscles, irregular in form, granular in surface, and rather larger than the red globules, will also be readily distinguished.' To discover whether any stain consists of blood, it must be moistened with some white of egg, then scraped off the material holding the stain, and examined under the microscope; if the stain consists of blood, blood-corpuscles, as above described, will be distinctly visible. In this manner, in supposed cases of murder, may we distinguish between blood stains, and red spots resembling blood.

"Beside the above named applications of the microscope, there are others of still more importance to the community as *the detection of adulterations in food and drugs.* A writer observes, 'to such a pitch of refinement has the art of falsification of alimentary substances reached that the very articles used to adulterate are adulterated. And while one tradesman is picking the pockets of his customers, a still more cunning rogue is unknown to himself, deep in his own !'

"The manner in which food is adulterated is not only one of degree but of kind. The most simple of all sophistications, and that which is the most harmless, is the mixture of inferior qualities of the same substance. * * * Secondly, the mixture of cheaper articles of another kind; thirdly, the surreptitious introduction of materials which, taken in large quantities are prejudicial to health; and fourthly, the admixture of the most deadly poisons in order to improve the appearance of the article 'doctored.'

"The microscope alone is capable of detecting at one operation the nature and extent of the more harmless but general of these faults. It distinguishes with unerring nicety an admixture of the common Circumar arrow root with the finer Maranta; it detects genuine ground coffee, from its adulteration with peas, beans, oats, dried bones, oak or mahogany, saw-dust, &c.; determines the presence of mildew in flour; of turmeric and flour in mustard; of red lead in cayenne peper; of water, chalk, calves brains, molasses, annato, flour, oxide of iron, &c., in milk, as well as the richness of milk; it exposes fraudulent mixtures of lard with butter; of Prussian blue, turmeric, chalk, and copperas in green tea; of gum, black lead, Dutch pink, and leaves of other plants in black tea; of roasted wheat, beans, carrots, parsnips, horsechesnuts, oxide of iron, baked horse's liver, &c., in chicory; and of wheat flour, hundreds of sugar insects, sand, and albumen of bullock's blood in sugar. Impurities in butter, bread, cheese, molasses, spices, vinegar, and other necessities of life may at once be detected by this powerful instrument, so that as a saving to the pocket as well as to the health, it should form a part of the domestic apparatus of every family.

"The most useful and fascinating study, is that belonging to a microscopic observation, and it is much to be regretted that means have not been heretofore employed to introduce its charms and value into the homes of the people—to their firesides. A more valuable gift from father to son, from husband to wife, from friend to friend, than that of a microscope, cannot be made; for, unlike any other instrument, it can bestow upon its possessor, amusements, profit, instruction, health, and happiness. Its astonishing and magnificent revelations are of so bewitching a nature, that the parent, the son, or the man of

common sense, who has once become fairly acquainted with them, would rather pass his unoccupied hours at home, in the circle of his family, displaying to its members the powers and excellencies of his microscope, thus cultivating in their minds a taste for scientific pursuits, than to waste those hours away from home in the turmoil and strife of political excitements, in the mind and soul-destroying region of a porter-house, or, in any of those many dens of dissipation, debauchery, and vice, which throw out the most alluring temptations, to catch the indolent, the unwary, the careless and the ignorant; to rob wives of the affections of their husbands, to make sons rebel against and cause anguish to their parents, despoil wives and daughters of all self-respect, and render them among the vilest of the vile.

"Unfortunately, some have conceived the microscope to be mysterious instrument, capable of being managed or understood only by certain particular persons. This, however, is great error; it is intended as an improvement upon our sense of sight. Objects which can be seen well by the natural eye, do not require its assistance; but with those which are too small to be thus seen, we aid the power of vision by employing the microscope, and which every individual possessed of sight can readily use. Persons with imperfect sight use spectacles to improve this sense; and the microscope improves the magnifying and defining powers of the eyes.

"A great obstacle to the more common use of the compound achromatic microscope, heretofore, has been in its expensiveness, but instruments are now made by our best opticians, called 'student's microscopes,' which will accomplish all that any person need desire. The value of a microscope does not lie so much in the beauty or workmanship of its brass mountings and other metallic accompaniments, as in the quality of its object-glasses and eye-glasses. An object-glass itself, however great may be its magnifying power, is useless unless it possesses penetrating and defining power also. It is from a want of these latter powers in their objectives, that the French microscopes imported into this country are inferior in quality, notwithstanding the excellence of their brass-work and their low prices.

"In purchasing a microscope, the name of its manufacturer ought always to be learned, from the fact that our best microscope makers never permit poor glasses to leave their workshops."

IN-AND-IN BREEDING.

EDITORS SOUTHERN CULTIVATOR—A new spirit seems to have taken some of the farmers and stock breeders of the South, within the past year, by surprise, and not a few have carried this vexed question almost beyond a doubt, and they boldly assert that in-and-in breeding, and no other, will do for stock breeders in future, either in this country or any other.

After the valuable dissertation on "Hereditary Blood in Man and other Mammalia," which has appeared in the columns of the *Cultivator*, many seem to consider the matter of in-and-in breeding as permanently fixed, and that they have at least found the great desideratum so long wanting to complete success in stock breeding. Dr. Lee took the matter up with a skillful hand, and none will say that he did not handle his subject in a masterly manner. He left no stone unturned which would help to throw some light upon the subject.

But here a question arises among the mass of stock breeders, will in-and-in breeding always ensure success, and give the desired end at all times, and under all circumstances? or will the majority of the cases result beneficially? Let us see! It took many years of close study and constant care to establish the foundation of the present Devon Stock. They were formerly of small size and

very inferior milkers—many unsuccessful attempts were made to improve them. The in-and-in breeders dare not leave the Devon stock for improvement, and those who were more venturesome lacked the knowledge of the requisite qualities wanted to make the Devon a finer animal. We undoubtedly owe the present improvement to Mr. Bloomfield, the manager of Lord Leicester's estate at Holkham. He made a great improvement in the size and milking qualities of this valuable breed, without materially improving the beauty and form of the animal. He really deserves the great credit and honor which he has received. But how did he accomplish this result? He took a finely formed, good sized, deep colored *Durham* bull and ingrafted him with some large and superior heifers (of the Devon breed) that their after progeny might partake of the bull which first served them, a case by no means uncommon with cattle, one very perceptible in horses, and to some extent among sheep and swine, and not an uncommon occurrence with the human family. I will not stop here to note this subject, but if the reader will refer to one of the back numbers of the *Cultivator*, he will find an article to the effect, from myself. But let me get back again to my subject. Mr. Bloomfield, then, with the after progeny of these Devon heifers which had been served, he bred them to large and finely formed Devons which were little or no relation to each other. By this means he produced the finely formed Devons of the present day; and for us to keep this stock at its proper standard, it is necessary for stock breeders to breed in-and-in, but how close the relationship may exist and not deteriorate the herd is a question which remains to be proved, and only experience will do that.

As with cattle, so with sheep. Let us take the Bakewell or Leicester, a breed of sheep which have been kept in a certain state of perfection for nearly a century. They were originally the produce of a full sized Romney-Marsh ewe and a Cheviot—the first a coarse, ungainly animal of slow growth and of very little real value; the other a finely formed but very small animal, quick to grow, and having medium quality wool, from four to seven inches long. By breeding the progeny of these sheep to some of the finest sheep then found in England, Mr. Bakewell has produced the far-famed and justly celebrated animals so well known throughout England and this country at the present day. It is true that he must have practiced the in-and-in system—the parent upon the progeny—for several successive generations, which had a tendency to impress effectually the desired characteristics of the race, and it is certain that even Mr. Bakewell carried the refining system to such an extent as to partially destroy the reproductive powers. And he was subsequently obliged to introduce new animals to re-invigorate and continue his flock, showing by his own experiments that by carrying the in-and-in system too far it would ultimately destroy the improvements he had already made in his flock.

But with this is there not another consideration? Did not his nice discrimination of the character and qualities of sheep, his choice selections, his pampered feeding and judicious management, all have their bearing upon bringing this breed to a state of perfection? We should emphatically say, Yes!

The breeding from too close affinities, though it may have many advantages, to a certain extent, in the hands of skillful breeders; though it may be pursued until the excellent form and quality of a breed is developed and established, and was the source whence sprung the superior cattle and sheep of Mr. Bakewell, and, to some extent, the Short Horns of Mr. Colling; yet to it, also, must be traced the speedy degeneracy—the absolute disappearance of the new Leicester cattle, and in the hands of many agriculturists, the impairment of the constitution of the new Leicester or Bakewell sheep.

Mr. Bakewell was a master spirit in breeding, and . . .

cannot be denied, produced a breed of cattle worth the efforts of such a skilful agriculturist. The principle on which he seemed to act was novel, bold, and, for a time, a successful one. Some of his cattle were extraordinary illustrations of the harmlessness of such a system (in-and-in); but he had a large stock on which to work; a veil of mystery was thrown over the most of his proceedings, and no one knew his occasional deviations from this rule, nor his skilful interposition of remoter affinities when he saw or apprehended danger.

But what has now become of the new Leicester or Bakewell cattle? Where are they to be found? It was a bold and successful experiment and seemed, for a while, to answer the most sanguine expectations of that skilful and spirited breeder.

In districts in which experiments were carried on, it established a breed of cattle unequalled by few, and it enabled the long horns to contend, and often successfully, with the heaviest and best of the middle horns. But no sooner had the master spirits of the day disappeared than the character of the breed began, imperceptibly, to decline. It had acquired a delicacy of constitution inconsistent with the common management and keep, and it began slowly and undeniably to deteriorate. Many of them had been bred to a degree of refinement that the propagation of the species was not always certain. The breed itself gradually diminished, in some places it almost disappeared. The reader may scarcely give credit to the assertion, but it is strictly true that, in 1833, there was not a single improved Leicester on the Dishly farm; nor a dozen within a circuit of as many miles. It would seem as if some strange convulsion of nature, or some murderous pestilence had suddenly swept away the whole of this valuable breed.

Thus we can see, that while this same man was eminently successful on one hand, he was as certainly unsuccessful on the other.

Mr. Bakewell's breed of sheep has handed down to us in exactly the same degree of perfection as when he left them, and during the century since he left them. This race must have been bred in-and-in, although the relationship existing between the dam and sire may have been tens of generations apart; and where such genealogy exists between any two animals which may be used for breeding purposes, can we, with strict propriety, call the results in-and-in breeding? I should say not.

Although some of the most decided improvements have been made by following the system of in-and-in breeding, yet it has only been done by the most judicious selections and the exercise of cautious judgment, while in the hands of the ordinary breeder it is sure to run out a stock, degenerating them rapidly, rendering the males impotent, in many cases, and the females of little value as nurses or breeders.

Experience seems to have proved that crosses of the same variety of animals, but of another family, have made the best animals; and such a course is to be preferred to the breeding in-and-in. In some cases, where there is a marked superiority in any race of animals which it is wished to retain, a cross with a race less perfect in some respects, perhaps, but more vigorous, making, what breeders call a strong cross, and then breeding directly back to the favorite blood, has been very successful. But when the progeny are designed for breeders, the practice of in-and-in breeding should be branded with unqualified reprehension.

D....

Edgefield District, S. C., June, 1859.

The belief that guardian spirits hover around the paths of men, covers a mighty truth, for every beautiful, pure, and good thought which the heart holds, is an angel of mercy, purifying and guarding the soul.

HIGH PRICE OF HORSES.

EDITORS SOUTHERN CULTIVATOR—This is a very important subject, and a brief consideration of it will lead to some facts which ought to awaken the attention of the whole country. A nice little buggy horse, which, twenty years ago, would, *perhaps*, have brought seventy-five or eighty dollars, now commands the extravagant price of four or five hundred, and in some cases, especially if he be a gentle Morgan horse, *eight hundred dollars*. A good substantial pair of carriage horses are ready sale at from six to eight hundred dollars, and it is no uncommon thing that one thousand dollars are paid, and in some instances even the enormous sum of *fourteen hundred dollars*. For horses of like size, style, and qualities, twenty-five years ago, a hundred dollars, or at farthest a hundred and fifty dollars, would have been a fair valuation per each animal. Now it must be apparent to all who will take the trouble to reflect upon the subject, first, that there must be some cause for this great increase of price, and, second, that there is something wrong in the working of the machinery of our domestic system, or such extravagant and *unnatural* prices would neither be paid nor demanded.

When the great Railroad Convention was held in Knoxville, Tennessee, in 1836, and the construction of Railroads began to agitate the public mind, one great objection was opposed to their construction by the farmers, and especially the stock raising farmers of the West, that Railroads would take the place of their horses in the transportation of the travel and productions of the country, would thereby depreciate the value of their stock and consequently deprive the farmer of a large source of his yearly revenue. But the Railroads have been built, and instead of the anticipated and dreaded depreciation in the price of horses, lo! they have gone up one, two, or three hundred per cent., and the extravagant prices we have named are now demanded and paid. We cannot but believe, however, that the objection of the Western Stock grower was founded in correct reason; for the hundreds and thousands and even tens of thousands of horses formerly occupied in our thousands of miles of stage lines and in hauling the goods and produce of the country, are no longer needed in those services, and that vast army of horses, once thus employed has been dismissed, to engage in the less laborious and less life-exhausting services of the farm. The Railroad does all that horses formerly did, and even more than was done by them. Fewer horses are needed, and the price, therefore, upon the ordinary principles of supply and demand, should consequently be depreciated.

Now, as the *reverse* of this is the fact in the case, it is important, as we have before intimated, to investigate the cause of this great increase of price; to raise a warning voice against the erroneous working of our domestic machinery and to suggest a remedy for an evil which is just beginning to be felt; but which, if it is not soon arrested and the tide of events is not speedily reversed, is destined, in its enlarged and still growing enormity to be more overwhelming in its ruinous career than the wasting desolations of Egypt.

When large and complicated systems of machinery have become extensively deranged, it is exceedingly difficult to bring them again to a proper adjustment. So is it in Society. When opinions, however erroneous, have been long adopted, and practices, however prejudicial and detrimental to the ultimate well-being of society, have been long established and acquiesced in, it is equally difficult to alter the direction of the one, or materially modify the bearing of the other and give proper balance to the disadjusted parts of the social machinery that those parts may work with harmony and ease. The unnatural prices now demanded and paid for horses are evident indications of disturbing forces in the machinery of trade, and it is,

therefore, an important question to determine—*where is the derangement—or what is the disturbing force?* The answer we give to this question may not be admitted by some and the remedy we suggest may not be allowed for a season its legitimate importance, yet we feel confident from a long and careful study of the subject, that, sooner or later both the answer will be appreciated and the remedy must be applied.

We believe the cause of the high price of horses arises mainly from the fact of the *large increase in the rearing of mules*. We say *mainly*: We know that the rapid increase of our population and the large accessions made to our cultivated lands in the opening of new countries have given a larger demand for horse-power; but the natural increase of horses, under ordinary circumstances, being about equal to the increase of population and to the wants of the people for agricultural purposes, we cannot look to these, therefore, for the cause of the effect which we see is produced. Perhaps in no period of the world and in no country, has there been so rapid an increase in the rearing of mules as has been witnessed in this country in the last twenty years. In the Census Tables published by Congress in 1841, so inconsiderable was the number of mules in the country at that time, or from some other cause, that their number was not stated in a separate column, but they were reckoned in the number of horses. Their real number at that period cannot, consequently, be accurately known. In the Census of 1850, their number is separately reckoned and placed in a column by itself, and an addition of the number found in the two Carolinas, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Arkansas, Tennessee and Kentucky discloses the large sum of 449,249. We regret that we have not the census of the present time that our argument upon the subject might be more complete. In order to make the point of our argument more clearly to appear, we call the attention of the reader to a few facts, which evidently have an important bearing upon the subject.

First fact. This large number of mules had been mostly reared in the ten or fifteen years immediately antecedent to 1850.

Second fact. The opening of the lands for cultivation in lower Georgia, in Florida, in Alabama, Mississippi, Louisiana, and especially in Texas and Arkansas, since that period has greatly augmented the demand for mule service, and we may suppose that their ratio of increase has been, since that period, not less than thirty-three per cent. From this we may safely calculate there are at the present time, in the States we have mentioned, no less than six hundred thousand mules.

Third fact. To breed this vast army of mules requires a large number of mares—every “mare mule” reared is so much abstracted from the *producing force* of the country and every mare [“horse mare” we mean] engaged in breeding mules [*perverted* we should rather say] is soon lost to the country, as she leaves no issue to take her place to cause the stream of “living life” to flow after her. When she dies the stream is stopped. According to the immutable laws of nature, hybrids do not breed, and we should learn from this fact that the breeding of mules is a violation of nature’s wise and salutary laws. If *every mare in the whole country in the length and breadth of the land were put to the breeding of mules, and this practice were continued for fifteen years, the race of horses would, in that short time, become totally annihilated.* Would not this be an evil more ominous in its consequences than the plagues of Egypt? The wealth of an Astor could not then purchase a horse. There would be no horse to be had. In vain would a Richard cry—“A horse, a horse, my kingdom for a horse!” The universal proclamation would be—

“Go call a horse, and let a horse be called,
And in your calling, do ye nothing call
But horse, horse, horse, oh! for a horse ye gods!”

And yet the evil would not stop here—for in a very few years those miserable, ugly, stubborn, sterile, long-eared hybrids, whose introduction into the world was the death-knell to the noble horse, would soon themselves leave the stage of action and their race, too, would soon cease from off the earth; and we would add, if their extinction could be the resuscitation of the noble race they had chased to the grave, with uplifted hands we would say, “So mote it be!”

The total extermination of the horse is but a supposable case; yet, as “drops make up the ocean,” every mule that is raised is one item towards its completion.

Again. Suppose these six hundred thousand mules were horses—one half of them, suppose, were mares—and half of these were engaged in breeding, we should then have one hundred fifty thousand colts—from this source alone—annually reared to supply the demands of the country and to lessen the enormous prices now paid for mules and horses. *Here let it be borne in mind that, in the price of horses, as in that of every other commodity brought into the market, the law of supply and demand regulates the price of the article.* Hence it is that the fewer the horses are reared, the greater must be the price, and the larger the number the less the price.

The evil of which we write is, from the state of things as they are, annually increasing. Year after year, as the mares employed in breeding mules die off, the number becomes less and less, and the *ability* of the country to raise both horses and mules is annually diminishing. The capital producing stock is becoming smaller and smaller. In Kentucky, as the census tables show, there was from 1840 to 1850 a falling off in the *aggregate number of horses and mules of over fifteen thousand*; and we know that during that period there was a large increase in the number of mules raised, the inference is, therefore, irresistible that there was a much larger deficit than fifteen or even twenty thousand in the number of horses. Though it is true, that in the other States, there was an increase in the aggregate number of horses and mules, it needs no argument to prove in which of these the increase was made—and made, too, at the expense of the horse-producing power, both within their own limits and in Kentucky and Tennessee, whence their largest supplies have ever been drawn.

The continuance of this state of things even for another decade of years will produce a condition in the affairs of the country from which it will require years and years to recover. Indeed the evil has already been continued, until we see the country is plunged into the unnatural and unhealthy condition in reference to this subject, we have mentioned; and even now, if the proper means were employed to arrest the evil, many years would be required to restore a proper equilibrium in the price of horses.

I have little to say in this paper as to the relative economy of mule and horse labor. The general sentiment of the country seems to be that it is economical to employ the latter. It is true, the mule has some qualifications to recommend him to favor; he is, doubtless, longer lived and a smaller eater than the horse—especially the loose-jointed, soft boned and flabby-meated horses, too often brought into the country. He requires, too, less attention and will endure rougher treatment and harder usage than the horse; but we seriously question whether, after all, he is a more economical animal to employ in the service of the plantation. He is not as strong as the horse and does not move as fast and cannot, consequently, accomplish as much work. I did not take my pen to write upon the comparative merits of the two animals; thoroughly satis-

fied I am, however, that it would be better for the country at large to return to the former custom of rearing and using horses. I have, I admit, a kind of instinctive love for the noble horse, and I may have a kind of antipathy towards the mule; at any rate, I think a decided "fancy" of the latter animal shows a perversion of taste, almost a monstrosity. I do not know but that the employment of the mule in the refined service of drawing the carriage and the buggy—service so appropriately belonging to his superior, the horse—is one of the causes of a degeneracy of taste and lack of refinement.

The remedy of the evil we are speaking of is easily suggested. It is to return to the rearing of stock as nature has made them. RAISE HORSES. Let every mare in the country be employed as a breeder. Let the beautiful, graceful colts, such as we used to see every spring, when we were a boy, appear upon all our farms. Let more attention be paid to the selection of such breeds of horses as are needed for farming purposes, as well as other uses, and, most naturally, the evil of the enormous, unnatural prices now demanded for horses will soon be numbered among the things of the past.

July, 1859.

been wonderfully improved, of late, and we will give cuts and descriptions of it in our next number.

PRUNING THE GRAPE.—W. M. H.—We have procured the necessary cuts to illustrate Grape pruning; and they will appear in our next.

SUGAR CANE—SYRUP, &c.—J. B.—We sent you the desired pamphlet, August 13. Also, Treatise on Grape Culture, &c.

PEAR CULTURE IN THE SOUTH.—H. L.—We will commence the re-publication of the able Essay of our friend, Dr. BERCKMANS, in our next number.

WINE MAKING, &c.—A SUBSCRIBER.—See August number of *Southern Cultivator* (1859) page 247; also, "Grape Culture and Wine making in the South," which we will send per mail for four letter stamps (12c.) if you will send us your address.

AGRICULTURAL BOOKS—R. F. P., M. D.—All the books you desire may be had per mail from A. O. MOORE & CO., 140 Fulton street, New York.

BOOKS, PAMPHLETS, PAPERS, &c., Received at the Office of the Southern Cultivator since our last issue.

From A. O. MOORE & CO., Agricultural Book Publishers, 140 Fulton st., New York:

"Moore's Rural Hand Books," 2 vols. Third and Fourth Series.

"Country Life. A Handbook of Agriculture, Horticulture, and Landscape Gardening," &c., &c.

"The Anatomy and Physiology of the Horse," etc. By DR. GEO. H. DADD.

"Agricultural Essays." By EDMUND RUFFIN, of Va.

"Stray Leaves from the Book of Nature." By M. SCHELE DE VERE, of the University of Virginia.

"Langstroth on the Honey Bee."

"Mysteries of Bee Keeping Explained" By M. QUINBY, Practical Bee Keeper.

"Hints to Horsekeepers," &c. By HENRY WILLIAM HERBERT.

From HARPER & BROTHERS, New York:

"The American Home Garden," etc. By ALEXANDER WATSON.

From LINDSAY & BLAKISTON, Philadelphia:

"A Manual of Scientific and Practical Agriculture, for the School and the Farm." By J. L. CAMPBELL, A. M., Prof. of Physical Science, &c.

From ROBERT CLARKE & CO., Cincinnati, Ohio:

"The Microscopist's Companion. A Popular Manual of Practical Microscopy." By JOHN KING, M. D.

From A. D. HAMMETT, Esq., of Hammett, Cherokee co., Georgia:

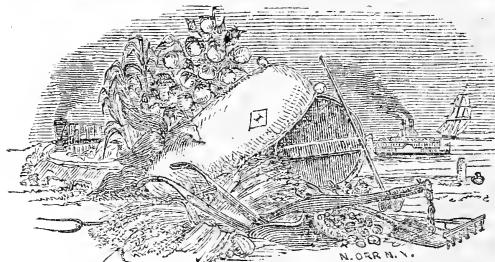
Two quaint old volumes (of 1802) on Gardening, entitled "Rural Recreations," for which Mr. HAMMETT has our best thanks.

The foregoing will be noticed more at length hereafter. We have also received the following Periodicals, Papers, &c., all of which are worthy the attention of the reader:

"Supplemental Catalogue of Fruit Trees," &c., &c., cultivated at "Fruitland Nurseries," Augusta, Ga. By P. J. BERCKMANS & CO.

"Annexed Catalogue of Trees, cultivated at Gloaming Nursery," 1859 and 1860. Clarksville, Habersham co., Ga. By JARVIS VAN BUREN.

"Pear Culture in the South." An Essay, &c., &c. By L. E. BERCKMANS, of Augusta, Ga.



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII, NO. 9: SEPTEMBER, 1859.

ANSWERS TO CORRESPONDENTS.

TILE DRAINAGE FOR RICE PLANTATIONS.—J. A. S.—We shall be glad to receive the promised article for publication.

SUFFOLK PIGS.—J. DU B.—Address DR. M. W. PHILLIPS, Edwards, Miss.

MENDENHALL'S HAND LOOM.—JAS T. C.—We are not qualified to judge fully the merits of this machine, but have a favorable opinion of it. Address: WM. HILL, or W. B. GRIFFIN, Augusta, Ga.

FARMING AS A "PROFESSION."—O. M. K.—If your son has "more talent than ordinary boys," we cannot see why he may not find full scope for it in the pursuit of Agriculture and its kindred and collateral branches. What says the poet?

"Would you be strong? Go follow up the plow;
Would you be thoughtful? Study fields and flowers;
Would you be wise? Take on yourself a vow
To go to school in nature's sunny bower.
Fly from the city; nothing there can charm—
Seek wisdom, strength and virtue on a farm."

BOOKS.—A. S.—We have published the list, with prices, &c., in a back number of present volume, which see.

UTLEY'S PLOW.—DR. L. S. G.—This implement has

The Knickerbocker, Russell's Magazine, Ladies' Home Magazine, The Home Circle, The Horticulturist, The Courant, The Home Journal, New York Waverley, Georgia Temperance Crusader, Water Cure Journal, Phrenological Journal, Life Illustrated, &c., &c.

THE GRAPE CROP---GRAPE CULTURE, &c.

In this vicinity, the Grape crop of the present season, has suffered very severely from *rot*, supposed to be caused by the intensely hot weather of the latter part of July. Previous to that time, the weather had been so damp that it was thought necessary by many experienced cultivators to strip off a portion of the leaves, in order to *air* the fruit properly; but, in all cases where this was done the loss by *rot* was greatly increased, during the "heated term." We question the propriety of removing the leaves of the Grape vine, under any circumstances, in this sultry climate; believing that all the air necessary may be given to the fruit and vine by proper pruning and training. We are aware that some of our most successful and experienced Grape Growers advocate and practice the removal of a certain portion of the leaves; but we have, as yet, never heard a satisfactory reason for it. We hope the disasters of the present season will "bid them pause," and reflect whether a more natural and sound system cannot be adopted. We shall be glad to have the subject thoroughly discussed in our pages; and trust that all who possess any information will impart it freely.

SEPTEMBER PEACHES---GRAPE, &c.

ANY of our readers in Georgia or the adjoining States, who may have fine Peaches ripening from the 1st to the 25th of September, will greatly oblige us by sending (at our expense) samples of the fruit, accompanied by a written description of its origin, habits of growth, &c. We would, also, be glad to procure any fine Grapes that ripen a few weeks *later* than the Catawba. We are confident that there are many valuable native fruits of different varieties, yet unknown to the great mass of Pomologists, and it is our desire and object to have all such disseminated as soon as possible, after they are fairly tested. Samples may be sent, per Express, directed to D. REDMOND, Augusta, Ga.

TO OUR SUBSCRIBERS.

In sending off a large edition of our paper to the thousands of postoffices scattered over our immense country, mistakes will sometimes unavoidably occur either by ourselves or by the post office department; but we are always anxious to rectify such mistakes whenever they do occur.

Whenever any of our friends have occasion to write us, we shall be glad to have them send us information in regard to the crops, weather, &c.; also to furnish us accounts of any agricultural experiments they may have tried, that will be calculated to interest their brother-farmers.

SOUTHERN AGRICULTURAL FAIRS.—See the programme of State Fairs, in another column, and be prepared to attend those of Georgia, North and South Carolina, Alabama, Tennessee, Mississippi and other Southern States, with your finest animals, best plantation products, fruits, flowers, needle-work, &c., &c.

SOUTH CAROLINA INSTITUTE FAIR.

THE "South Carolina Institute" Fair for the promotion of Art, Mechanical Ingenuity and Industry, will commence at Charleston, on Tuesday, November 15, 1859.

Suitable premiums will be given for the best specimens in Art, Mechanism and other branches of Industry; also for Cotton, Rice, Sugar, Tobacco, Corn, Wheat, Rye, Oats, Potatoes, and other Agricultural Products.

The Ladies, to whom the Institute is so much indebted, are respectfully informed that suitable Premiums will be provided by the Committee, and awarded for the best specimens in every department of Ladies' work.

All articles entered for Premiums, must be sent in on or before Friday, the 11th of November next, directed to the care of Mr. THOMAS AIMAR, Clerk of the South Carolina Institute, Charleston. Articles may be sent after that day for *exhibition only*.

Contributors to the Fair are respectfully requested to send full descriptions of the articles, and such general information as may be of use to the Judges, and suitable for publication. Every attention will be paid to all articles sent for exhibition.

PRUNING THE GRAPE.

We will present, in our October No., a short treatise on the Pruning and Training of the Grape Vine, as practiced by the best Vine Growers of the South—accompanied by such illustrative cuts and diagrams as well serve to make the matter perfectly plain to all who can use a knife or clipping shears. This information has been much needed; and, we doubt not, will be acceptable to a large class of our readers.

TO CORRESPONDENTS—Communications have been received and are on file from the following and many others: Jno. R. Stanford—H. E. Hooker—G.—L. T. B.—A Sun-Burnt Farmer—C. G. Word—P. Robinson—Geo. W. Gordon—Dr. Wm. B. Jones—B. S. Bigelow—John R. Rall—A. O.—Thos. B. Flintham—Silas McDowell—J. Van Buren—C. C. W.—A Planter—D. Johnson—L. W. S.—P. P. P.—G. D. Harmon—Dr. M. W. Philips—A. J. Lane—Wm. Slade, Jr.—R. B. Canova—S. A. Pritchard—John Adams—J. D. Stewart—Middle Georgia, &c., &c.

Most of these articles will appear in our next (October) number, which will be, in many respects, one of unusual interest and value. We are under many obligations to our very attentive correspondents, and hope they will continue their favors.

GEORGIA FAIR—The Annual Fair of the "Southern Central Agricultural Society," of Georgia, will be held in Atlanta, from the 24th to 28th of October, and the Executive Committee, the Secretary, and the citizens of Atlanta, seem determined to do everything in their power to render the exhibition interesting and successful. Premium Lists, &c., may be obtained from the Secretary, Dr. Jas. CAMAK, Athens, Ga.

CONDENSED CORRESPONDENCE.

"BLACK TONGUE" AND CATERPILLARS.—Will some of your correspondents be good enough to give us a cure for "Black Tongue" in cattle, as it is prevalent in this country; and a remedy for Caterpillars on Apple trees—they are very numerous in this region. J. T. P.

Magnolia, Ark., 1859.

ASPARAGUS.—I wish to ascertain from you or some of your correspondents the *modus operandi* of planting and raising this vegetable, which I consider indispensable for table use. And the best way to manage an old bed that produces, annually, slender and tough sprouts?

I have had a bed for years and have manured it every January with a mixture of stable manure and forest litter. For a few years the bed done well, but now it does not. I have thought it would be a good plan to dig up the bed and make a new one. If I do so, when is the best time in the year to prepare it?

Any advice upon the above subject, will be thankfully received.

A SUBSCRIBER.

[You may expect a reply from one of our subscribers or ourselves, in the next number of *Cultivator*.—EDS.]

GALLS ON HORSES, &c.—Wash the sores twice a day with castile soap and apply white paint thereafter as plaster, with a soft brush or the finger. In a very few days the galls will have healed.

AUGUSTA.

QUINSEY IN HOGS.—If W. E. A., will boil corn and stir in it about a pint of rosin to every twenty hogs, it will stop the sore throat from taking hold on all that eat of it. If rosin can not be got, stir a half a pint of spirits of turpentine in a half bushel of meal and give to twenty hogs. I have known the disease stopped with the above receipt often and never have known it to fail.

Yours truly, M.

Clay Hill, S. C., 1859.

EARLY COTTON.—I would be pleased to hear the views of your correspondents as to that species of cotton seed best suited to a *drouthy country*, such as Texas, where all crops are required (for success) to mature as early in the summer as possible, thereby avoiding, as much as possible, the drouth which sets in from the first to the middle of July.

Should your experience or information warrant you in suggesting any particular species, please advise us Texans. We plant as soon as the season permits, but that does not save us.

With many wishes for your success in your most laudable enterprise, I am

Yours, with much respect, G. W. E., M. D.

THE FIRST BOLL AND FIRST BALE.—The Covington (Ga.) *Times*, of August 11, says:

"We were shown, one day last week, a boll of cotton well matured, which was taken from the field of Hon. J. J. Floyd, on the first day of August. This is the first new cotton we have seen or heard of being matured in this section."

And the Vicksburg (Miss.) *Sun*, of August 6th, states that "Our townsman, Wm Cox, Esq., shipped yesterday to New Orleans a bale of this year's cotton, which was made on the plantation of our enterprising and clever friend, Col. Gabe Fowler, of this county."

FAYETTE (TENN.) AGRICULTURAL SOCIETY.—There will be an Industrial Exhibition at *LaGrange*, Tenn., by the Fayette County Agricultural Society, on Thursday preceding the 1st Monday in October next.

LIME FOR MANURE.

"A Subscriber," in the last number of the *Cultivator*, inquires as to the best mode of using lime for manure. If lime be cheap and a broad-cast application be designed, lay off the land in 20 feet squares with the plow, and place a half bushel of lime in each square. This will give fifty bushels to the acre, which is a good dressing for average land. This application should be made only to new ground, or stubble land abounding in vegetable matter. If lime be costly and it becomes necessary to use in smaller quantities, then apply it in the drill for cotton or corn, in the following manner: As early as possible in the fall or winter, lay off your land; run twice in the same furrow, making it as deep and wide as possible. Fill this with vegetable matter, straw, corn stalks, scraps of fence corners, &c., scatter unslacked lime over this litter in the drill at the rate of 15 bushels per acre; cover it with earth and let it remain until spring, planting upon the ridge. Our word for it, that the crop of cotton or corn in ordinary land and of a good year, will be nearly if not quite doubled.

H.

QUARTERLY JOURNAL OF AGRICULTURE.

THE July number of this valuable journal has been received. This Quarterly is published by the United States Agricultural Society, and edited by B. P. POORE, Washington, D. C. It is mailed to all Life and Annual Members. Any person may become a Life Member of the United States Agricultural Society by remitting to Hon. B. B. FRENCH, Washington, D. C., ten dollars. Life Members receive an elegant Diploma, all the publications of the Society, free tickets of admission to all exhibitions, and their share of such seeds and cuttings as may be procured for distribution. Annual members receive the publications of the Society by paying a fee of two dollars. The next Annual Meeting of the Society is to be held at Chicago, commencing on the 12th of September. The citizens of Chicago have guaranteed that the receipts of the exhibition shall not be less than \$17,000. The Premium List is on the most liberal scale and is as comprehensive as possible. In addition, a list of volunteer premiums, from the citizens of Chicago, will soon be published. "The Grand Gold Medal of Honor," is to be awarded to "that machine which shall supersede the plow, as now used, and accomplish the most thorough disintegration of the soil with the greatest economy of labor, power, time and money." This premium looks to steam as a motive power in the cultivation of the soil. The word plow is not used in it, because it is supposed that in connection with steam some other instrument may be found more effective than the plow. Besides this premium of the United States Society, there are now \$6,000 offered by different Societies in this country, as a premium for the same purpose. The amounts offered in Europe are still larger. In view of the partially successful experiments which have been made, the strong stimulus of these Premiums at home and abroad, the inventive genius of our people and the imperishable renown of success, it can scarcely be doubted but that in the course of a few years, lands lying

level, in large fields and tree from obstructions will be prepared for cultivation by the powerful agency of steam. When this occurs, it will effect a revolution in Agriculture as thorough as that produced in travel and transportation by the same agency. If we might venture to criticise this carefully prepared Premium List, it would be to suggest a deficiency in the "Department of Agricultural Literature and Investigation." There are a number of subjects as to which the thoughtful farmers of the country thirst for information. The annual festive assemblage of our National Society might present not only a collection of Agricultural products, but a concentration of Agricultural minds. Thus, as from a centre of light, the whole country might be irradiated.

For the information of those of our readers who have not seen the *Quarterly Journal of Agriculture*, we publish the table of contents of this number entire. We do this in hope that it may enlist interest in a Society which should be sustained by every American Farmer:

How Agriculture can be Sustained, and its Permanent Prosperity Promoted—by Professor Francis G Carey, of Ohio.

Agricultural Schools—their chances of Usefulness. By A. L. Elwyn, M. D., of Pennsylvania.

The Archives of American Agriculture.—First attempt to establish a national agricultural organization in 1796, by George Washington; establishment of Agricultural Fairs at the seat of government in 1804; The Society for Promoting Public Economy, in 1806; A National Fair at Philadelphia, 1809; The Arlington Sheep Shearings; The Columbian Agricultural Association, founded in 1809, with its constitution, list of members, first premium list, and accounts of its five first exhibitions. By the Editor.

The Bread Region.—Translated from "the Earth, Man and Plants"

A Harvest by Horse Power in 1842. By Gen. Tench Tilgham, of Maryland.

Farming by Steam in England.—From a London Periodical.

Agricultural Chemistry.—From the London Economist.

First Premium List, and Regulations for Exhibitors, at the Seventh Annual Exhibition at Chicago, arranged by Departments and Classes.

THE SECRETARY'S TABLE.—Editorial Acknowledgments. The National Exhibition of 1859. The Patent Office, Agricultural operations.

Farming by steam. Trial of Fawkes' Steam Plow.

Review of New Publications. French's Farm Drainage; Watson's American Home Garden; Sargent's edition of Downing's Landscape Gardening; Copeland's Country Life.

Exhibitions for 1859.

Abstract of Agricultural Information, arranged by States and Territories.

Ode of Horace, translated by Ben. Jonson.

Foreign Agricultural Information.

Executive meeting, United States Agricultural Society, and New Members.

The North Alabama Times says:—"The *South Countryman* has been merged into the *Southern Cultivator*, its editor, Rev. C. W. HOWARD, becoming associated with Mr. REDMOND in the editorial management of the latter. The united efforts of these two gentlemen will, if possible, render the *Southern Cultivator* more valuable than ever."

CHEROKEE BAPTIST COLLEGE, AT CASSVILLE, Ga.

As one of the Board of Visitors, we had recently the pleasure of attending the final Examination and Commencement Exercises of this promising young institution. The performance of the young gentlemen were creditable to themselves and their instructors. The impression made upon our mind is very decided, that parents in the region of country, the wants of which this institution is designed to meet, are under no necessity to send their sons to a distance to obtain an excellent collegiate education. The President, the Rev. Mr. RAMBAUT, is a graduate of Trinity College, Dublin, and is both an orator and a scholar. The other officers are accomplished in their departments. There are some features which are peculiar to this institution. Board and tuition in the College can be obtained at \$160, the scholastic year. Young men of adult years, who need it, may settle by note for their tuition fees, payable on their success in after life. Those preparing for the ministry may always receive gratuitous instruction. A decided attention is given in this institution to practical Science. In the department of Chemistry and Agriculture, it is designed to afford facilities for the acquisition of a practical knowledge of Chemistry, including its application to agriculture and the arts. After the analytical course is completed, students are allowed to make investigations in the Laboratory. Exercises in Drawing, Field work, Practical Astronomy, &c., are conducted by the Professor of Mathematics, who is, we believe, a graduate of West Point. We consider the course of study in this institution a decided advance. It is its practical character which justifies this somewhat extended notice in an Agricultural journal.

H.

EDITORIAL NOTES.

Gordon County.—We have recently had the pleasure of attending a meeting of the Gordon County Agricultural Society at Calhoun. Col. ROGERS is the President, and D. W. NEAL, Secretary of this Society. Well does this noble county deserve the attention of an Agricultural Society—not so much to repair damage which has been done to the soil, as to prevent it in the future. It is not generally known that the lands rate higher in Gordon than in any other county in Georgia, averaging fourteen dollars per acre in value. Unless this Society shall prevent it, it is to be feared that these valuable lands will share the common fate of Southern soil. We well recollect, when Cass and Floyd counties were first settled, that it was thought to be impossible to wear out the lands—it was supposed that they would not, under any system of culture, be impaired by washing. Twenty years have elapsed and some of these fine lands are nearly exhausted—many of them washed and gullied to a painful extent. We know land in Cass county, which 20 years since produced fifty bushels of corn to the acre, which will not now produce 20 bushels. On the contrary we know some lands in the same county, quite broken or rolling in character, which will now produce more than when they were fresh, and which will now sell for ten times their

original cost. The results illustrate the two systems of agriculture. The one which looks solely to annual returns—the other which combines with reasonable annual returns, a constant reference to the improvement of the soil, by deep plowing, manures and the grasses. There is a great amount of fresh land in Gordon county. The Oostanaula River and the different creeks afford a body of meadow land of great extent and fertility. Let the farmers of Gordon county remember that *an acre of good hay will sell for a larger sum than the produce of the best acre in the county in wheat, corn or cotton.* This would not be the case if hay raising were general. But until this is the case they might as well obtain the benefit of high prices as others. We could have sold our entire hay crop this spring in Chattanooga at \$25 per ton. The produce of an acre of ground which yields 2 1-2 tons of hay, at these prices will sell for \$62.50, besides the great benefit of the fall and winter pastures. There are many large bodies of meadow land in Gordon county which can be made to produce 2 1-2 tons of hay per acre. We wish the spirited Society of this county great success. We trust that its intelligent farming population will all become members of it. There ought to be a Fair annually held near Calhoun. What is there to prevent it? During our brief excursion to Gordon county we had the opportunity of a visit of two or three hours to Devon Hall, the farm of R. PETERS, of Atlanta. We were obligingly shown the various kinds of stock which were near the house by the intelligent manager, Mr. CAREY; but designing to make a more careful examination of this admirable establishment at some future day, our comments will be reserved until after that examination has taken place.

Griffin and its vicinity.—The Commencement of the Griffin Female College has afforded us the occasion of a most agreeable visit to this thriving place. It is generally supposed by persons at a distance that Griffin has suffered by the extension of the Railroad lines beyond it. This is an error. Everything indicates thrift and prosperity. Great attention is here paid to the subject of Education. There are two large Female Institutions. One, at the head of which is Rev. Dr. PATTERSON, of the Synod of Georgia, and numbering nearly 100 pupils. The other, the Griffin Female College, over which the Rev. Mr. ROGERS presides with dignity and success, is attended by considerably more than 100 young ladies. We were pleased to observe that Mr. ROGERS is endeavoring to obviate the "opprobrium" of these institutions, extravagance in dress, by requiring a simple and economical apparel to be worn by the pupils. We trust that his efforts will be sustained by the patrons of this institution, and that this wise example will be extensively imitated by similar establishments. We have much to say on this subject of Female Education, but the general purpose of this journal will not allow us to dwell longer upon it. Besides these Female Colleges, Marshall College, an Institution for young men, under the control of the Baptist Church, is established and is in a flourishing condition, numbering nearly 100 pupils. An unexpected branch of business is carried on here to a considerable extent. We

were surprised to learn that the sales of WOODRUFF & Co. of the different kinds of carriages exceeded \$100,000 per annum. Two other establishments of the same character make up an aggregate annual sale of more than \$200,000 of this kind of property. The average shipments of cotton from this depot are about 30,000 bales per annum. Eleven large iron front brick buildings are now in process of erection. Mr. GIBSON is building a handsome and large dwelling of two stories of concrete—the cheapest and best material which can be used for that purpose. We hope to obtain from him, when it is completed, an account of the details of cost. The admirable iron plow of Mr. BLOODWORTH is made at this place—a plow which gives the greatest satisfaction to those who have used it. Mr. BLOODWORTH kindly drove us out to see the result of some subsoiling done with his two horse plow on land belonging to Mr. MARTIN. We should be sorry to own much land that was poorer, from exhaustion, than this seemed to have been. Yet by being thoroughly subsoiled, together with a slight dressing of manure, it was producing a handsome yield of corn. It is very certain that the cheapest method of increasing our landed estate, is by going down into the soil. If we have used only three inches of the surface of a 100 acre field, and if we then, by doubling our depth by plowing, use an additional three inches of soil, it is equal to buying another 100 acres without having either to pay for it or to fence it.

Judge DOBBINS afforded us an opportunity of looking at a remarkable plow which he has partially completed. He is not satisfied with it in its present condition, but hopes to exhibit it in a perfect state at our next Fair, when we will give a description of it. This farm of Judge D.'s is an apt illustration of the truth of our views on the "Low Price of Land," published in both the *Cultivator* and the *South Countryman*. This farm consists of 1,800 acres, and is valued at \$10 per acre—\$18,000. Of this 1,800 acres, 1,300 are woodland—\$13,000 dead capital out of \$18,000—a portion of the remaining 500 acres was turned out to rest and recover. Judge DOBBINS has promised this fall to thin out some of this woodland and sow it down with grasses suitable to winter pasture. If these 1300 acres of woods pasture yielded only one dollar per acre, it would be annually 10 per cent on their value, and besides the stock which they would support, would make the rest of the farm indefinitely rich. When planters are urged to perform extra work like this, their general reply is, we have not time, as cotton absorbs all the force of the plantation. It does not seem to occur to them that there is such a thing as hiring extra force, or letting out a job by contract. There are but few positions in which sufficient labor cannot be obtained during the winter to perform this extra work. We submit to the judgment of planters whether it be not sound economy to make this outlay, which renders a part of our capital active which is now dead, and enables us to improve all the rest of our land? So far as we could learn, the average crops in the vicinity of Griffin are about as follows:—about 400 to 450 lbs. of cotton, 5 to 6 bushels of wheat, and 8 to 10 bushels of corn to the acre. If it were not for the increase of their negroes, planters could not sustain themselves and families with such crops. The necessity of manure is urgent. Judge DOBBINS made 1000 lbs. of cotton to the acre last year from poor land manured with guano. He thinks he can afford to use it at \$80 per ton. Our friends in that portion of Georgia must adopt some method of improvement on their lands will be reduced to hopeless sterility. Clover will grow upon them. We warrant that, if it be put in properly and afterwards properly treated. If they will follow our counsels we will suggest a plan by which their lands will not only be restored to their original fertility, but be made more fertile than they ever were previously. There would be vanity

in this remark if we pretended to any originality. This is not the case. We propose to accomplish our purpose by merely pointing out the methods which we have seen other persons adopt, with entire success, to answer the same end. As the restoration of the soil—its increase in value and fertility—is the great end now to be gained in Southern Agriculture, no opportunity will be lost to render this journal a means of communicating information in regard to it. We take leave of our esteemed friends in the vicinity of Griffin by reminding them of the venerable and time-honored remark, that "God made the country and man made the town," and by suggesting that it is irreligious to allow an inversion of this natural order. The citizen would not be permitted to outstrip the planter in the generous race of improvement. The increasing groups of youth, eager in pursuit of knowledge, the busy sounds of the saw and hammer, should be met by a corresponding advance in the recovery of the soil from exhaustion and in its restoration to more than former productiveness.

Horticultural Department.

 The Hartford (Ct.) *Homestead* thus compliments our inimitable correspondent, the "Doctor," of "Torch Hill," and seldom is a compliment so well deserved:

"The following gem of pomological rhyme from the *Horticulturist*, is exceedingly refined, musical, and full of racy wit. True, there might have been a pear in every line, but that would have been clogging—here are just enough. We certainly hope this pomological luminary of Torch Hill, may attain the distinction he covets—then long be the reign of short names for our fruits!"

"WHAT'S IN A NAME."

Shakes-pear.

Beurre de Kuckingheim! Brown Beurre!
'Tis a wonderful jargon, yes sir-ree!
Fits to utter, and cramps to spell,
Dutch, English and French in a Jargonelle!

Doyenne d'Alencon d'Hiver gris!
Van Mons Leon le Clerc! dear me!
Bless the branches and save root,
If all that "flourish should turn to fruit!"

Elect me king, and I'll make a law,
Entitled "an act for your under jaw;"
Syllables two shall name a tree,
And a pear shall perish that carries three.

Proudly then shall our pyramids grow!
Straight and taper and full of blow!
Crack, nor canker, nor blot nor blight,
Frost to hinder, nor bug to bite.

Plump and juicy shall Duchess swel',
Coral crimson the F. O. relle;
Iced champagne shall our Jerseys bear,
And every Seckle shall be a pear.

Flemish Beauty shall spread apace,
And good St. Michael's grow in Grace;
The very Diel shall his limbs untwist,
And go to heaven like an Urbaniste!

Golden days for the orchard, sure!
Happy times for the amateur!
When every "Title" shall mean a thing,
And pears are plenty, and I am king!

Torch Hill, Ga., 1859.

ORCHARD RAMBLES---NO. 2.

THE APPLE IN MIDDLE GEORGIA.

"*The Apple is the Surest Fruit Crop in Middle Georgia.*"—Southern Cultivator.

[Continued from our August number, page 246.]

EDITORS SOUTHERN CULTIVATOR—I have a friend who, when he fails of his dessert, gets out his "Downing" and goes over the description of the Duchesse D'Angouleme Pear.

I can commend a similar course of treatment to a large number of my fellow-countrymen, who are visited every evening, particularly in the winter, at about 9 o'clock, by a strange, uncomfortable sense of "missing something."

By taking down Nursery Catalogue, and looking steadily at the list of Southern Winter Apples, they will, if they do not experience immediate relief, at least learn what ails them—which is a good way towards it.

In fact, I consider the apple a great moral and physical necessity of our race; a thing to be *stolen* if it cannot otherwise be come by—for what Legislature hath ever done that violence to its own human instincts as to declare such a theft a larceny!

To the Middle Georgian, the Apple is a vari-colored spheriod with which enterprising shop-keepers ornament their front windows during Christmas; where it figures at the enormous financial disadvantage of "50 cents a dozen!"

But to the great heart of humanity?

Suppose we take a man at random, only stipulating that he shall *not* be from Middle Georgia, and set him down in the middle of the desert of Sahara. Just at the instant, under the influence of the climate and scenery, *he dries up*, suppose we pass an apple under his nose!

Did ever a gleam of midnight lightning draw a brighter picture out of deeper darkness than follows that one flash of mellow fragrance.

What song of summer birds; what hum of honey-bees; what snow of falling blossoms; what green of growing leaves; what undulating leagues of verdure; what babble of falling water; what tinkle of twilight bells?

What brighter things than these—

—"The eyes that mark
Our coming, and look brighter when we come,"
A flash without a crash, and with but one reverberation—
"Home!"

I don't believe that there was ever a poet born out of an Orchard country. In fact I gussed long before I saw it in her letters that Miss Bronte wasn't raised under an Apple tree. Bone and sinew are good in their place, but I could never realize any particular grace or goodness as involved in the complimentary phrase "*all* bone and sinew." I like an ounce or so of superfluous flesh; and a modicum of *red* meat, with a little well adjusted cellular tissue, as well as properly lubricated synovial fixtures, would go farther to remind one of Eve and Eden and red Apples than all the bony augularity which stands for strength, while it *should* stand for a mere want of juice.

It is certainly difficult to say how far a man's physical surroundings may mould his character. Perhaps to some higher intelligence a Shakespeare is but the natural issue of an Aven; a Holmes as readily to be predicated of a Housatonic, as a hay crop. To such an intelligence, what kind of human being would present himself as the intellectual offspring of a country where Apples are not; where sheep are not, and where the other domestic mammalia are quoted as types of misery?

A featherless biped without calves; a bilious vibranticle between tobacco and whiskey, with not a half-way from his mother's milk to strychnia; a wretched perverader of plum thickets; a restless dabbler in law, physic and

politics; a weary mover to the West! Wherein is he miserable but in all things? Wherein happy but in *one* thing, the stamping of his own image and superscription all over the face of the earth,

"Worn out! worn out! worn out!"

In short, the experiment of raising children without apples, and without the society of sheep, is sometimes so entirely original and new in nature, that like Friar Bacon when he first touched fire to gun-powder, we would do well to prepare ourselves not to expect too much nor—too little.

For the cultivation of Fruit and that of the Christian Graces have been so linked together since their common origin, by a common language; they walk together so beautifully through the solemn aisles of our Holy Religion, through record and revelation, through parable and proverb, through gospel and epistle, through prayer and psalm, that it would be strange if the *one* should not share the benediction so graciously shed upon the *other*.

Therefore, as an earnest of a glad future for Southern Pomology let us cultivate in children their innate love of the subject. Their "hunger and thirst" after fruit may be guided to their great and enduring advantage—let their pomological education begin then with the rosy apple that precedes the evening prayer.

Torch Hill, Ga., June, 1859.

GRAPE CULTURE IN FLORIDA!!! GRAFTING Foreign Grapes on Native Roots!

In our last number, page 248, we promised our readers an account of the wonderful success of Hon. A. G. SEMMES, of Florida, in cultivating the finer varieties of Foreign Grapes in the open air of that favored region, and we accordingly quote from pages 232—210 of J. K. FISK ALLEN's "Practical Treatise on the Culture and Management of the Grape Vine," &c., New York edition, 1855:

The Hon. A. G. Semmes, of Florida, has been experimenting with Grapes in open culture in that section of the United States, and with marked success. The reader of the following remarks, (extracted from letters to the author of this book,) will see, that notwithstanding his vineyard has been destroyed by a terrific gale, enough has been proved, to show that the vine in its richest varieties will repay the cultivator for his efforts.

APALACHICOLA, June 29, 1850.

"On receiving the cuttings of the Josling's St. Albans, I enclosed in your letter, I found two of them alive, which I grafted on wild stocks; they took at once, and are now growing rapidly. I will have a fine crop of fruit from them next year, for you will understand that a vine grows in this latitude in one year, what they do in your latitude in at least three years. The last season, I raised a fine crop from a graft of the Muscat of Alexandria (on wild stock) one year old, one bunch weighing eight and a half pounds, and perfect in form and flavor."

"The birds are the only evil we have in this climate in raising Foreign Grapes. They never touch a white grape, probably waiting for them to turn black."

"Our season has been quite backward this year, and my grapes have not matured as early by a month as last year. During this month I have had the Early Muscadine and Malaga in abundance. The Black Hamburg, Black St. Peters, and Muscat of Alexandria, are ripening rapidly, and will be in perfection the following months, July and August. My native grapes, Isabella, Catawba, &c., ripen in August and September. The Isabella here is a very inferior grape, and ripens very badly. The Catawba is its superior in every respect. Bland is superior to either. But the greatest Southern Grape is the Scuppernong; in this latitude far superior to North

Carolina, its *reputed native place*. A gentleman of high character and intelligence, who cultivates the Scuppernong in Louisiana, says it is a Grecian grape, and that the Greeks make their finest wine from it. We never prune it, its yield is almost incredible; when perfectly ripe the fruit is a very deep bronze, very sweet and with but little pulp.

"The foreign grapes, grafted on our native stocks, do far better than when growing on original stocks, are much more hardy, for mere luxuriant, and bear better and earlier. The Isabella stock will, in two years' growth, exceed any foreign variety I have tried, in four or five years' growth, but any foreign variety grafted will grow as rapidly as the native. I have foreign vines now, grafted last February, many with five and six branches, each branch or stem from fifteen to twenty-five feet, and they have until Dec, next to grow, when foreign varieties commence dropping their leaves. The native varieties drop their leaves some six or eight weeks earlier, except the Scuppernong, which continues to grow till sometime in December.

"I train my vines on a trellis from seven to eight feet high (of wire) but cannot follow the rigid system of pruning recommended in European culture, and practised at the North. Where the vines are allowed to grow with but little pruning, a trellis is far preferable to the arbor, for many reasons; but we have to so train our vines, that not a ray of sunshine ever touches the fruit; otherwise the fruit loses much of its fine flavor and is altogether robbed of its bloom, which, if it does not preserve its flavor, at least adds to its beauty. The grapes I raise (as an amateur) are said by Northern gentlemen here, to be far superior to any they ever tasted from the hot houses at the North. There can be no climate in the world superior to this section (West Florida) for the foreign grape. I have tested the raising of the foreign varieties, at least for six years, and have no doubt as to the success of any one of ordinary intelligence undertaking the business. The only objection in this place and immediate neighborhood is, the soil is too sandy. This we have to remedy, which we partially do. I manure altogether with bones (whole), shells, and palmetto roots, all deposited in the ground when the vine is planted; they will last, I believe, twenty to thirty years. The latter article contains a great deal of potash, and it affords a fine manure, though of course not so durable as the former. Animal matter I never use, unless decomposed, in which state it is very superior. There is no substance, however, equal to bones, and the larger and fresher the better, as they afford, by their gradual decomposition, the very richest and most suitable manure for the vine. If, however, wine and not table fruit is the object, vegetable manures should be used to the exclusion of bones and other animal matter, and this for obvious reasons.

"Allow me to say that I have derived much satisfaction in reading your work on the Grape. The arrangement and your own remarks on the views of other writers are most judicious."

"I have, I believe, all the publications on the subject extant, and thinking, as I do, that it is superior to any of them, have recommended it to many of my friends."

QUINCY, FLORIDA, Dec. 22, 1852.

"Yours of the 5th instant has just been received, and I reply without delay. The severe gale of 1851 destroyed my vineyard in Apalachicola. Being located some 150 yards from the bay, the water swept away my dwelling, and killed many of my most valuable vines.

"The remnant I brought with me to this place, where I removed last January. I had some 600 vines, out of which I have saved 20 or 30. The cuttings you sent me were all growing finely, most of them having been grafted on native stocks. This year would have tested their quality and adaptation to this climate; but, I regret to

say, I have lost them all, except one of the Josling's St. Alban's.* So soon as I can make the necessary arrangements I shall again commence. After the most thorough trial, I am perfectly satisfied that the foreign grape can be cultivated in this climate with success. The climate is, in every respect, adapted to its cultivation, and the soil, which in this section is objectionable, (being a heavy clay,) is very easily remedied. The ground once properly prepared, all that is necessary to ensure success, is a judicious system of pruning and training the vines. The one, in this climate, is as important as the other, and either neglected, must end in disappointment. The rot, which is the great evil complained of almost every one has undertaken the cultivation of the vine in the Southern States, particularly in this latitude, is to be attributed altogether to the fatal error they have adopted in both pruning and training. The preparation of the soil, of course, is essential to the health and vigorous growth of the vine, and without these we cannot have good fruit; but it is a great mistake made by many writers on the subject, that certain manures, upon which the vine feeds, and which the most of our soils are deficient in, will prevent the rot. The close pruning for out door culture, adopted in Europe, and the Eastern States particularly, will not answer for this climate. The reason is very obvious. The vine is too much exposed to the intense heat of our sun; besides, on account of the heat and duration of our summers, a vine here, under proper culture, will, in twelve months, grow as much as a vine in England will in four years. And to adopt the rigid system recommended by Mr. Hoare, would ensure a loss of the fruit every year, and, in the end, the vine itself. After a vine has become established, say after the first year, (if healthy,) it should never be pruned back exceeding one-half, and sometimes not more than one-third, of that year's growth, unless it be the smaller lateral shoots. This will secure a sufficient foliage to protect the fruit from the rays of the sun, which is the main cause of the rot. Unlike other fruit, it is all-important that the grape be entirely shaded at every stage of its growth and maturity, otherwise if it escape the rot, it will be small, hard and insipid. I have known canvass, and other artificial means, adopted to shade the vines in this climate. This will not answer; for although it will secure the fruit from the rot, yet the rich flavor of the grape is impaired, if not entirely destroyed. The natural shade and protection of the fruit is the foliage, and the more luxuriant this is, the greater certainty of fruit of large size, and rich flavor. After several years' experience with some five hundred vines, I have never known an instance in which these suggestions did not prove true, both in regard to the native and foreign varieties, especially the latter, on account of their thin skin and great delicacy.

"In training the vine, I much prefer the trellis to the arbor. As to the kind of grape suited to this climate, I would state, I know of no foreign variety which will not succeed in open culture, and I have cultivated many varieties which cannot be raised in England on account of their great delicacy. The true Malaga—on account of its exceedingly thin skin, the most difficult—I have cultivated in great perfection, and it was pronounced by all who tried them, as far superior to the imported Portugal or Malaga, as a ripe peach is to a green one. Among the foreign varieties, I rank first the Muscat of Alexandria; no grape can equal it in point of flavor, and I have raised them weighing 8 1-2 lbs. to the bunch, and without an imperfect grape. Next is the Black Hamburgh, and then

the Malaga. These three I place at the head of the list of foreign grapes.

"Among the native varieties, the most valuable I consider the Scuppernong, which cannot be cultivated at the North. It is claimed to be a native North Carolina. This is a mistake. It is a Grecian grape known there as the *Alaric*, and from which the finest wines of Greece are made.^[?] All things considered, it is unsurpassed as a table fruit, except by the three foreign varieties I have named. As a wine grape, it has not its equal. It will yield five gallons of juice to the bushel of grapes. The fruit in Carolina is far inferior to that raised in this climate. In point of flavor, one would hardly recognize it as the same grape. This is to be attributed mainly to our long season, the fruit blooming in May, and ripening in August and September. The bunches are small, varying from three to ten berries each, and when properly cultivated, the grapes will average from 2 1-2 to 3 inches in circumference. If manured with vegetable matter, they have but little, if any, pulp. If with bones, or other animal manure, they are a richer table fruit, but with more pulp, and consequently less valuable as a wine grape. The vine is never pruned. It prunes itself. The knife is fatal to it. And, unlike all other grape vines, it will not strike root from a cutting, being propagated exclusively by layers. The next best grape in this climate, of the natives, is the Elsingburgh, and with this the chapter is complete, for I know of no other worth the trouble of raising. The Isabella is utterly worthless with us; so is Hyde's Eliza. The Catawba, and Warren grapes, are each better; but those who have eaten of either the *Alaric* or Elsingburgh, and especially any of the foreign varieties would never undertake the culture of the Isabella or Catawba.

"I have eaten of the best of this fruit raised by Dr. Underhill at Croton Point, near New York, and have come to the conclusion that it is impossible to rid the Isabella of its pulp, and of that wild native flavor it originally had."

"I have been compelled necessarily to condense my remarks, but allow me to say in conclusion I know of no work in this country or Europe in which more valuable suggestions upon the subject of Horticulture, and particularly of the cultivation of the grape vine, are to be found than in your publication. With my entire library, it has gone to sea, in the gale of 1851. I hope you will supply me with a copy of the new edition. Those who have a taste for such things, and wish to learn, will be repaid by the perusal.

"Respectfully yours,
(Signed) "A. G. SEMMES."

[Some of the statements of the Hon. Mr. SEMMES are almost "too good, &c., &c.," and we are forced to differ with him in taste as to the superiority of the *Bland* over *Catawba* and some other matters. Does the experience of any other Florida Grape cultivator enable him fully to endorse and sustain the positions of "the Hon. gentleman?" We shall be pleased to hear of more Muscat bunches weighing "eight and a half pounds," and will, ourselves, be glad to raise them of half that size!—Eds.]

 Intellect is not the moral power; conscience is. Honor, not talent, makes the gentleman

*[This gentleman is not partial to the fox flavor of the native American Grape. Many can be found who are, however, and I think this number is increasing, as evidenced by the great sale of this fruit annually, and the immense quantities now grown by amateurs for their own use.—ALLEN.]

For the Southern Cultivator.

YE LITTLE TREE.

BY YE ORCHARD RAMBLER.

Take it up tenderly,

Plant it with care;

It's but a little tree,

Nothing to spare!

Scant are the limbs on't,

Fibres but few,

Take care, or it won't

Take care of you!

Mangle the bark of it!—

Man with a soul!

Pestle the roots of it

Into a hole!

Oh, for the shame of it.

Better be dead,

Fruit to the name of it!

Nary a Red!

Take it up tenderly,

Man with a soul!

Oh! but a little tree

Likes a big hole!

Fair is the sight of it,

Lordly and bold!

Fruit on the limbs of it

Crimson and gold!

Who'd be a market-man

Selling his fruit,

Gum in his eye, and

A worm at his root?

Down with the raw-bone

Shrivelled' and dry!

Juice for my jaw-bone!

Joy for my eye!

Basket on basketful,

Peach upon Peach!

Juno-like, beautiful!

Rosy and rich!

Choose for the good of you,

Orchardists, each!

Dollar a load, of you,

Dollar a

PEACH.

FRUIT--TRANSPORTING TO MARKET.

A very intelligent correspondent, who has, the past season, transported Strawberries successfully from Jackson, Tenn., to Chicago, Illinois, gives us the following description of his method of putting up the fruit. It is very valuable:

D. REDMOND, Esq.—*Dear Sir—I received an obliging letter from you in March, replying to my inquiries in regard to shipping Strawberries to a distant market. You requested me to let you know how I succeeded.*

My berries were picked into pint cups of tin, care being taken to have them quite clean. They were then packed in chests containing say 100 to 120 cups. To

separate the different tiers, narrow and thin strips of wood were used, close enough to bring two of them under each cup. To guard against the jarring of the railroad, the cups were not piled on the bottom of the chest, but on a false bottom, playing freely within the chest, and sustained by 4 to 6 springs, according to the weight of the fruit. The springs were of wire, in spiral form, such as used in spring mattresses. In the midst of the cups was set a large covered tin bucket of ice, which was replenished once on the way, at Cairo. Thus arranged, the fruit arrived in Chicago in good condition, and sold at remunerating prices, the highest being \$4 per gallon. It was picked from daylight to 10 o'clock, A. M.—left in the train at 11 o'clock and reached Chicago, 474 miles, next day by 1 or 2 P. M.—in time for dinner. I sent by the passenger train.

The purchaser was permitted to take the cups with him and return them next day. The berries were not handled at all, therefore, from the time they left the vines until they had to be prepared for the table. In consequence, they were sold at 70 cents per quart when the same dealer was selling Strawberries from Cincinnati at 20 cents per quart. The latter were sent in chests with shallow drawers, containing a bushel each.

The false bottom resting on common mattress springs is a simpler, cheaper and more effectual "fruit protector" than that to which you refer in the *Horticulturist*.

The first chests were ventilated by 10 half inch air holes, bored in the sides and ends an inch from the top. The upper cups were withered and mouldy. These holes were then stopped and there was no further complaint. With ice, the chests had better be close.

A better arrangement for the ice-holder would be, a tray of tin or iron about 3 inches deep, and as long and wide as the false bottom; the tray of a travelling trunk will give you the idea. It should be water tight and completely closed in, except a hole in the top to put in the ice, which hole requires a tight cover. There is, without these precautions, danger of spilling water upon your fruit by careless handling of the chests. It will be understood that this ice-holder is to be placed on top of the cups, bearing in mind that cold is propagated downward.

Yours truly, C. S D
Jackson, Tenn., July 13, 1859.

APPLES FOR THE SOUTH.

ONE of our very best practical Southern Pomologists, (R. PETERS, Esq., of Atlanta, Ga.) sends us the following list of Apples for the South. They were all fruited by Mr. PETERS at his own orchard, and were selected for their fine bearing and thrifty qualities. The list is very valuable, and may be fully relied on:

No. 1. *Yellow May*.—Size, small, ripe the last of May; valuable for its being the earliest known variety. It is extensively grown in Southern Virginia for shipment to the New York market. Tree a slow grower, but productive.

No. 2. *Red Astrachan*.—Size, medium to large, ripe early in June; an apple of great beauty and fair quality, valuable for market purposes; its crimson color and rich bloom making it very attractive. Tree, a good grower and productive.

No. 3. *Early Harvest*.—Size, above medium, ripe early in June; one of our best early Apples of fine quality, valuable for the table and for cooking. Tree, rather a poor grower, but an abundant bearer.

No. 4. *Red June*.—Size, over medium, ripe the middle of June; a well known and truly popular Southern Apple valuable for all purposes. Tree, a fair grower, and a regular bearer.

No. 5. *Yellow June*.—Size large, ripe from the middle

to the last of June; a Southern seedling of great merit—should be extensively cultivated for marketing. Tree, a vigorous grower, and an abundant bearer.

No. 6. *Sweet Bough*.—Size medium to large, ripe the first of July; a very superior apple for the table, of a rich, sweet, sprightly flavor. Tree, a fair grower and moderately productive.

No. 7. *Rhodes' Orange*.—Size large, ripe early in July; a seedling from Newton County, Ga., of good quality, the tree yielding, like the orange, successive crops of blooms and fruit. Tree, a slow grower when young, but a heavy bearer.

No. 8. *Julien*.—Size, medium, ripe the middle of July; a very delicious apple of Southern origin—should be in every orchard. Tree, a good grower and very productive.

No. 9. *Yellow Horse*.—Size large, ripe the last of July to the middle of August; a true Southern variety, well known and deservedly popular, reliable and valuable in every respect. Tree, a fine grower and a yearly bearer.

No. 10. *Summer Pearmain*.—Size, medium to large, ripe 1st to middle of August; a truly valuable and beautiful apple of Northern origin adapted to the Southern climate. Tree, a moderate grower, but a prolific bearer.

No. 11. *Aromatic*.—Size, medium to large, ripe the middle to the last of August; a South Carolina seedling, of fine quality—quite an acquisition. Tree, a vigorous grower and a great bearer.

No. 12. *Gravenstein*.—Size large, ripe from the 1st to the 20th of August; a European variety of great promise at the South, flesh tender, crisp and juicy. Tree, vigorous and productive.

No. 13. *Taunton*.—Size very large, ripe early in September; continuing in fine eating order for six weeks—a seedling from lower Georgia—the most valuable apple of its season—should be extensively grown for market; of good quality and showy exterior. Tree, a vigorous grower and a prolific bearer.

No. 14. *Robinson's Superb* (Farrar's Summer).—Size very large, ripe the 20th of September to the 20th of October; a splendid apple, of Virginia origin, flesh crisp, rich and juicy—well known in upper Georgia. Tree, a fine, upright grower, and a yearly bearer.

No. 15. *Hamilton*.—Size large, ripe in September—a seedling from Cass county, Ga.—a very superior apple. Tree, a good grower, and a regular bearer.

No. 16. *Buncombe* (Meigs).—Size, medium to large, ripe early in October, and will keep until January; a very beautiful and truly valuable apple—one of the very best in cultivation. Tree, remarkably vigorous and a regular prolific bearer.

No. 17. *Buckingham*.—Size, very large, ripe 1st to the middle of October; a seedling of the Cherokee Indians, of high flavor and beautiful appearance. Tree, a vigorous grower and a capital bearer.

No. 18. *Mangum* (Carter, of Alabama).—Size, medium, ripe in October, continuing in fine eating order until December; it is probably a native of North Carolina, and identical with the premium apple of the State Fair of Alabama, known there as "Carter." It is one of the very best and most reliable apples of its season. Flesh crisp, tender, juicy and delicious. Tree, a fine grower and a capital yearly bearer.

No. 19. *Oconee Greening*.—Size, medium to large, ripens in October; keeps until February; a seedling from the banks of the Oconee River, Georgia; the very best of the many greenings in cultivation—it should be extensively grown for marketing and for family use; flesh crisp and of a rich aromatic flavor. Tree vigorous and a profuse bearer.

No. 20. *Rawles' Jannette*.—Size, medium to large, ripe in October; will keep until January; a Virginia variety, retaining in this climate its late blooming habit; fruit of good flavor. Tree, a strong grower and a yearly bearer.

No. 21. *Green Crank*.—Size, medium to large, ripe 1st of November, and will keep until February; a variety quite celebrated in Tennessee, and one of the best early winter apples; flesh crisp, juicy and of a pleasant vinous flavor.

No. 22. *Bradford's Best*.—Size large, ripening in November; keeps until March; an apple in repute near Memphis, Tennessee, of good flavor and handsome form. Tree, very vigorous and a constant yearly bearer.

No. 23. *Stevenson's Winter*.—Size large, ripe in November; keeps until March; a seedling from Holly Springs, Miss., a very beautiful and valuable apple—a decided acquisition. Tree, a moderate grower and a good bearer.

No. 24. *Yellow English Crab*.—Size medium, ripe in November; keeps until March; a Southern seedling of good quality, and well worthy of propagation. Tree very vigorous and a yearly bearer.

No. 25. *Mattamuskeet*.—Size large, ripe in November; keeps until March; a seedling from North Carolina, of fair qualities and good keeping properties. Tree of vigorous habit and a good bearer.

No. 26. *Limber Twig*.—Size medium, ripe in November; keeps until April; a well known Southern seedling, rather inferior in quality, but very firm and a desirable keeper. Tree, a fair grower, and a profuse bearer.

No. 27. *Lever*.—Size medium, ripe in November; keeps until April; a seedling from South Carolina, valuable, handsome apple of good quality. Tree, remarkably vigorous and a capital bearer.

No. 28. *Yates*.—Size small, ripe in November; keeps until March; a seedling from Fayette county, Ga., of a pleasant, aromatic flavor, a truly valuable apple, far superior in this climate to Hewe's Virginia Crab, Hall, and others of the small varieties. Tree, a splendid grower and a profuse yearly bearer.

No. 29. *Nickajack*.—Size large to very large, ripe in November; keeps until March; a Southern Seedling of wide-spread reputation; its great size, showy exterior and late keeping properties, makes it a very desirable variety for market purposes—it is known from Virginia to Georgia by various synonyms. Flesh firm, quality good. Tree very vigorous and a regular bearer.

No. 30. *Shockley*.—Size medium, ripe in November; keeps until May; a native of Hall county, Ga.; decidedly the best and most reliable of all the late keepers, and particularly calculated for the cotton-growing belt, where it has been grown to great perfection in several localities; an apple of attractive appearance and good flavor, valuable for marketing and for family use. Tree vigorous, bearing heavy, yearly crops.

CULTIVATION OF THE TOMATO.

EDITORS SOUTHERN CULTIVATOR—In December dig a ditch two feet deep, twenty inches wide; fill in one foot with solid stable manure. Then mix the dirt from the ditch with same quantity of manure; fill in, and several inches above the surface. Let it stand there until you wish to set out your plants in the spring. Then take pieces of plank 2x4 inches and 12 feet long; put them in the ground two feet—say two pieces at the head of the ditch, and two at every 8 feet along the whole length of the ditch. Before setting the plants out, the surface of the ditch should be loosened up to half the depth. Set your plants out along between these pieces of plank, 6 feet apart, and as they grow up and require support, nail narrow strips or slats from one piece of plank to the other lengthwise on each side, not exactly opposite each other except the two first. The more the vines grow the greater the quantity of fruit produced. Cultivated in this manner the vines will grow eight or ten feet high and bear luxuriantly until a killing frost.

J. D. S.

Jackson, Miss., July 9, 1859.

 LONGFELLOW gives us the following spirited poem on a very inspiring subject:

CATAWBA WINE.

BY HENRY W. LONGFELLOW.

This song of mine
Is the Song of the Vine,
To be sung by the glowing embers
Of wayside inns,
When the rain begins
To darken the drear Novembers.

It is not a song
Of the Scuppernong,
From warm Carolina's valleys—
Nor the Isabel
And the Muscatel
That bask in our garden alleys—

Nor the red Mustang,
Whose clusters hang
O'er the waves of the Colorado,
And the fiery flood
Of whose purple blood
Has a dash of Spanish bravado.

For the richest and best
Is the wine of the West,
That grows by the Beautiful River;
Whose sweet perfume
Fills all the room
With a benison on the giver.

And as hollow trees
Are the haunts of bees
Forever going and coming,
So this crystal hive
Is all alive
With a swarming and buzzing and humming.

Very good in their way
Are the Verzenay,
And the Sillery soft and creamy;
But Catawba Wine
Has a taste more divine,
More dulcet, delicious, and dreamy.

There grows no vine
By the haunted Rhine,
By Danube or Gaudalquivir,
Nor on island or cape
That bears such a grape
As grows by the Beautiful River.

Drugged in their juice
For foreign use,
When shipped o'er the feeling Atlantic,
To rack our brains
With the fever pains
That have driven the Old World frantic.

To the sewers and sinks
With all such drinks,
And after them tumble the mixer!
For a poison malign
Is such Borgia wine,
Or at best but a Devil's Elixir.

While pure as a spring
Is the wine I sing,
And to praise it one need but to name it;
For Catawba Wine
Has need of no sign,
No tavern bush to proclaim it.

And this song of the Vine,
This greeting of mine,
The winds and the birds shall deliver
To the Queen of the West,
In her garlands dressed,
On the banks of the Beautiful River.

ORCHARD RAMBLES.

EDITORS SOUTHERN CULTIVATOR—Thomas Rivers, the most delightful of English horticulturists, has written a very pleasant treatise on raising all manner of fruit under glass; or "Orchard-houses," in short, or more properly, perhaps, "House-Orchards."

By grace of a little lumber and glass, he introduces the glow of Southern France into the heart of England, and therein employs himself so profitably in raising his

Peaches, Plums and Nectarines,
Pears, Apricots and ripe Strawberries,

and so pleasantly in telling about it afterwards, that one almost covets a climatic excuse to go and do likewise.

But after following him through the busy processes of building and bordering; of potting, and pinching, and pruning, and warming, and cooling, and wetting and drying; noticing, with particular interest, his complicated *caterpillar* and *mouse* performance, *on the root*, I cannot go out into the open sunshine, and look up at the broad, pellucid arch of my House-Orchard, without thanking God, and taking courage.

I hope I don't do Mr. Rivers too little honor, nor my native State too much, when I say that I underwent his recital with much of the sentiments of a *Fruit-Niagara* which should be called upon to consider the manner in which,

"The water comes down at Lodore,"
or something like the exaltation of Gulliver when he "extinguished" the Palace (good-will and fixtures) of the punctilious King of Lilliput.

I wish I could reciprocate the pleasure which Mr. Rivers has given me, by sending him a *small* specimen of a two-year-old "Shanghae." I could vouch for its filling all his borders with roots, all his room with foliage, and all his "pots" with peaches before he could fairly get out of the house. The difficulty is that being, like a certain hero of our history, a "hot nastered critter," it might, under the restraint of anything like a White-house, impatiently "kick the river off,"

And knock to shivers
The House of Rivers!

And this leads me (Orchard Rambles being not only discursive but excursive, with equal liberty to "arrive at results" and to "roll in the grass") to remark on the glorious future which dawns, from the East, on Southern Pomology. So far, the *Chinese fruits*, in beauty, vigor and productiveness seem to be even more at home than our natives. There is certainly no Peach here which rivals the Shanghae in these qualities; and the new Honey Peach takes to the soil like a Chickasaw Plum.

The former lacks beauty of color and, to my taste, a little higher flavor. The latter begins to bear before it is weaned, and blossoms, unfortunately, about the 8th of January.

Had we an air-line to China, *through* by daylight, great results might be expected. Here, for instance, I could drop this Late Crawford, with its magnificent coat of gold and crimson, into a hole (the Young American terminus) and in a short time receive it back, faithfully copied, but with the privilege of ripening the last of May!

As it isn't likely, however, that Young America will be in a hurry to cut himself off from the West by any

such direct route to the East, we must content ourselves by dropping the pits (instead of ye peach) into shallower holes, and cultivating the virtue of Patience in connection with the result.

But we really cannot expect too much from a Nation which has already presented us with an Evergreen Plum, and which, in its love of Festivals, celebrates none more sacredly than

"The season of ye peach blossoms."

T.

Torch Hill, Ga., August 1, 1859.

CHICKASAW PLUMS--PEAR ON THE HAW Stock, &c.

EDITORS SOUTHERN CULTIVATOR—I find the Chickasaw Plum subject to the attacks of a kind of worm, which is probably identical with the peach borer. I find it both in the individual tree, and in the stocks of that kind used in cultivating the foreign species. Please inform me whether the worm will injure the trees propagated on that stock, if the earth be piled up so as to cover the whole of the stock; or, in other words, will the worm attack the foreign species? Further, I would like to know whether it is of any great use, or indeed the slightest use, to have the fine plums raised on the Chickasaw stock to put out roots of their own. I know it has been said so; but I think it may be doubted; for the reason given for that course is, that the Chickasaw is a dwarf; but I think good ground will grow as large trees of it as are usually seen of the foreign kind. I want to know, because my trees are planted on a hard clay subsoil, and as it is not right (according to my views,) to put the roots of a tree in a deeper hole (on that kind of subsoil,) than can be drained by the plowing of the soil around the same, it follows that if I want roots from the graft as well as the stock—on a thin soil—I must pile up the earth around the tree; and to do this, and give the mounds so made a decent slope, will require a good deal of work, all of which may be unnecessary and, perhaps, injurious.

Will some one who has had experience in raising Pears on the haw stocks tell us how deep we may or must plant them when setting out?

I am inclined to think it will not do to plant them as deep as quince stocks, but leave the question to those who are more experienced. The grafts grew moderately well with me—last year and this being all the time I have tried them. It is, indeed, difficult (as a writer in your paper has said) to find well-rooted, thrifty plants of the common Red Haw, growing in the woods; but there are two other species of Red Haws which furnish thrifty looking, good rooted plants. I will describe them—beginning with the more common species. The one which is most common here (and most probably so all over the South) is characterized by a much larger number of thorns, and by having the old, rough bark in very narrow ridges and always sticking firmly to the stem of the tree (especially about the ground); the fruit is (I believe, though not positive now about it) round, rather flattened at the ends; red, somewhat patched with green spots; there is a great diversity of form, color and size in the leaf, (of trees having the same characteristics in every other respect, and I, therefore, choose to consider that all such trees are mere varieties of one species). The second species has its rough bark in large scales, which peel off, and leave the sound, tight bark sometimes green and buff, or light brown color; the wood is often ribbed near the ground; the leaf resembles that of some varieties of the (more) common species; the fruit is rather oval, deep red, with patches of black specks or spots. The stem, of bark of the stem of this species so much resembles the common Pear trees of this country, that I once mistook one of the Haws, for a Pear tree, (when the leaf was off) till I saw the fruit. This species grows tolerably large,

The third species retains its dead bark much less than either of the other kinds; its sound bark is greenish gray; wood ribbed; fruit oval, clear light red; leaf very distinct, divided into three to seven lobes, (giving it a ragged appearance, from which, doubtless, it has derived the name of "Parsley" Haw); trees smaller than the others, and very thirsty looking. I went out, one evening in the first of the past spring, to a piece of woodland enclosed in a field and got more good stocks of this sort than I was willing to use. Only about a third of my grafts took, because I had no grafting wax I suppose. But the best way to ascertain the comparative thriftiness of these trees is to observe the new growth of shoots in summer; and having done this, I can discover no decided difference in them, nor any thriftiness in any of them; but we know we ought to make allowance for these trees, because they are not in cultivation; and it is not likely that either the Quince or the Pear would show much thrift under the same circumstances.

I am taking up room in dilating on this subject; but as I think the Haw stock may be found peculiarly fitted for the cultivation of the Pear on such soils as mine is (a clayey limestone resting on a yellow clay subsoil), where the proper preparation for Quince or Pear stocks is too expensive for general use; and as a good many subscribers to your paper may have just such a soil, I proceed without hesitation or further apology.

But what is the proper depth to plant this stock, and, in fact, any dwarf stock? If the Haw must be planted *deep to prevent the breaking off of the graft*, then there is (so far as I can see) no advantage in its use. And how does the planting of a tree on a dwarf stock act in strengthening the union between the stock and graft? Does the mere proximity of the point of union to the roots cause a stronger union of the parts, or does deep planting assist cohesion merely by the surrounding earth forming a *prop* or the maintenance of the graft in an upright position? My Pears on Quince stocks are planted in holes five feet square and two and a half feet deep, with the point of union generally about a foot below the surface—a sort of provision is made for draining the holes of superfluous moisture, and they are doing really well—but I planted my thirstiest graft of Pear (on Haw stock) of last year's raising in the same kind of hole, also to the depth of a foot (the point of union) below the surface, and it (after making a little growth) has stood without growth for near or about two months. My other grafts, which are of less thirsty sorts and did not equal it (the Angouleme) last year, are beating it considerably this, because they were not planted so deep. It had best roots—thrifty looking as a No. 1 apple tree. I don't think the thorn will bear to have its roots excluded from the air—the Quince is a real *subterranean*.

I hope this and the first questions, will be freely discussed. I consider them all important questions in Horti—or rather Fruiti—culture. Will our right-hand man, "F. O. T." post us again as to the progress of that (dwarf) Pear tree which was planted in that im-mense hole—I believe no provision was made for draining that hole. Long life, and a free use of his pen to "F. O. T."

Yours truly, J. H. JOHNSON.

Marshall County, Ala., 1859.

REPLY.—If the insect that attacks the Chickasaw is identical with the Peach Borer, of course, the same remedies or preventives will deter him from committing his ravages upon the former and the finer sorts that may be worked upon it. The Chickasaw, we find, "suckers" very badly, and has no especial advantages, except that it is obtainable almost everywhere, while, in the South, other Plum stocks are scarce. We do not think it will

materially dwarf the finer kinds, especially if the latter throw out their own roots—but, query, do they often do that? If so, it has escaped our notice. We leave the Pear and Haw inquiries of our esteemed correspondents to the able pens of Dr. "L. E. B."—"D. P."—"A. C." end last, "but not least," "F. O. T." of "Torch Hill," the "Tom Hood" of Southern Pomology!—Eds.

PAVING AROUND STONE FRUIT TREES.

EDITORS SOUTHERN CULTIVATOR—Some years ago, while a resident at the Sand Hills, I saw growing on a neighbor's lot, some of the largest and most thrifty nectarine trees, of the clingstone variety, that I have ever seen, and loaded every year with an abundant crop of fine looking fruit, until half grown, when they become gummy and droped from the trees. In two other lots, I saw on each lot a tree growing in a walk, where the ground was constantly trodden and undisturbed, and each of these trees bore, generally, fine, ripe Nectarines. On the first lot, the ground was plowed and every year sown with oats under the trees, which never bore ripe fruit.

I adverted to these facts to my neighbor, but he always replied that he forgot to order the discontinuance of the plowing, and proposed I should remove one of his trees and make my experiments upon it. I did so, and having applied my theory, he was invited by me, the third year, to look at his tree, loaded with the most beautiful ripe fruit. I infer from my experiments that the ground should never be disturbed on which stone fruit trees are grown; and if paved around the trees, it would have a favorable tendency in maturing the fruit.

AUGUSTA.

INDIAN FRUITS.

EDITORS SOUTHERN CULTIVATOR—Enclosed I send you the names of a few more of our Indian Apples, which, if you think they would interest the readers of the *Cultivator*, are at your service.

Tillaquah.—The original tree of this magnificent fruit is still growing some four miles from Franklin, N. C. It is so great a favorite with all who pass the road that but few remain on the tree to thoroughly ripen. Its name signifies "big fruit."

Toccoa.—This Apple was found in the orchard of Jeremiah Taylor, an old Revolutionary soldier, living near the celebrated Toccoa Falls, in Habersham county, Ga. It ripens in August; is a very delicious, high flavored fruit. Toccoa, when rendered in the English language, means "beautiful."

Cullasaga.—Is a Seedling from the Horse Apple, raised by Miss Ann Bryson, who resides on the bank of the Cullasaga, or Sugartown fork of the Tennessee River, in Macon county, North Carolina; is a very aromatic, early Winter Apple. Its name signifies "sweet water," or "sugar water," and is pronounced Cullasajah.

Yahooola.—Was found growing on the banks of an old gold pit, near Yahooola Creek, a large stream in Lumpkin county, Ga., and was brought into notice by Wm. Martin, Esq., of Dahlonega, who informs us it is a desirable winter variety. The meaning of its name we do not know.

Chestoa.—Takes its name from its resemblance to a rabbit's head, being conical oblong in form, with one side near the calyx, jutting over the other, like a rabbit's nose. I think the name was bestowed upon it by S. McDowell, Esq., but am not positive of it.

J VAN BUREN.

Clarksville, Ga., July, 1859.

CROPS IN LOUISIANA---IMPORTED COTTON--- Sunflowers, &c.

EDITORS SOUTHERN CULTIVATOR.—Cotton and Corn crops in this county, that have not been flooded, look finely; though we at one time thought that the corn crop would be very much injured for want of rain. We are scraping and moulding the young cotton, and thinning the young corn that was planted on the overflowed land. It looks well for its age, but, of course, it will be too late to make anything like a full crop.

I counted, to day, on a stalk of Boyd Cotton 137 bolls and forms; on an African stalk, 141; on a stalk of McBride, 135, and on a stalk of imported cotton 237 (6th of July.) These stalks were each 3 feet high. The imported cotton is certainly, up to this time, the most prolific cotton I have ever seen, and at least 10 days earlier than any variety above mentioned.

If any of your numerous readers have made an experiment which has proved that the planting of Sunflowers around their homes will prevent chills, let them please communicate the fact through your paper, and oblige "many voters."

Yours, &c., G. D. HARMON.

Compromise Place, Miliken's Bend, La., July, 1859.

FRENCH AGRICULTURAL SOCIETIES.—The *Constitutionnel* publishes an article in praise of the agricultural societies which have been established throughout France within the last few years, and have rendered such good service in extending the system of the rotation of green crops. Through the influence of agricultural societies the old routine of fallows and white crops have been abandoned in nearly all parts of France. The consequence is that the cultivation of wheat, which in the year 1846 occupied only 5,965,998 hectares of land, was extended in 1856 over 6,468,236 hectares. The produce of the wheat crop has increased within the same period from 10 to 18 hectares.

When I gaze into the stars they look down upon me with pity from their serene spaces, like eyes glistening with tears, over the little lot of man. Thousands of generations, all as noisy as our own, have been swallowed up by time, and there remains no record of them any more; yet Arcturus and Orion, Sirius and the Pleiades, are still shining in their courses, clear and young as when the shepherd first noted them from the plain of Shinar. What shadows we are, and what shadows we pursue!

THOMAS CARLYLE.

BEAUTIFUL THOUGHT.—"Some author informs us how we became indebted for the 'Red-Rose.' They were all of a pure and spotless white when in Eden they first spread their leaves to the morning sunlight of creation. Eve, as for the first time she gazed upon the taintless gem, could not suppress her admiration of its beauty, but stooped down and impressed a warm kiss upon its snowy bosom. The rose stole the scarlet tinge for her velvet lip, and yet wears it."

IS THAT ALSO THINE?—A beautiful reply is recorded of a Dalcarlian peasant whose master was displaying to him the grandeur of his estate. Farms, houses, and forests were pointed out in succession on every hand, as the property of the rich proprietor, who summed up finally by saying, "In short, all that you can see, in every direction, belongs to me." The poor man looked thoughtfully for a moment, then pointing up to heaven, solemnly replied, "And is that also thine?" How many who are satisfied only to grasp all that is around them and beneath them down to the centre of the globe, wholly forget to own—upward.

It is a pretty saying of an old writer, that men, like books, begin and end with blank leaves—infancy and insensibility.

COMING AROUND.

The May number of the *Atlantic Monthly*, whose pages are generally filled with the incubations of Abolition writers or by their allies, has a concession somewhat remarkable, in the article entitled a "Trip to Cuba." The writer is said to be a poetess, and the wife of a noted abolitionist. The Boston party were landing at Nassau, of which the writer says:

"There were many negroes, together with whites of every grade; and some of our number, leaning over the side, saw, for the first time, the raw material out of which Northern humanitarians have spun so fine a skein of compassion and sympathy. Now, we who write, and they for whom we write, are all orthodox upon this mighty question; we have all made our confession of faith in private and in public; we all on suitable occasions walk up and apply the match to the keg of gunpowder which is to blow up the Union; but which, somehow, at the critical moment fails to ignite. But you must allow us one heretical whisper—very small and low. The negro of the North is an ideal negro; it is the negro refined by white culture, elevated by white blood, instructed even by white iniquity—the negro among negroes is a coarse, grinning, flat-footed, thick-skulled creature—ugly as Caliban, lazy as the laziest of brutes, chiefly ambitious to be of no use to any one in the world. View him as you will, his stock in trade is small; he has but the tangible instincts of all creatures, love of life, ease, and of offspring. For all else, he must go to school to the white races and his discipline must be long and laborious. Nassau, and all we saw of it, suggested to us the unwelcome question, whether compulsory labor is not better than none. But as a question, I gladly leave it, and return to the simple narration of—what befel."

LOVE OF NATURE.

How is it that a scene of quiet beauty makes so much deeper an impression than a startling one? The glorious sunset I had witnessed on that sweet lake—the curving and forest-mantled shores—the green islands—the mellow mountains—all combined to make a scene of surpassing loveliness; and now as I lay and watched the stars coming out one after another, and twinkling on me through the tree tops, all that beauty came back on me with strange power. The gloomy gorge and savage precipice, or the sudden storm, seem to excite the surface only of one's feelings; while the sweet vale, with its cottages, and herds, and evening bells, blends itself with our very thoughts and emotions, forming a part of our after existence. Such a scene sinks away into the heart like a gentle rain into the earth, while a rougher, nay sublimer one, comes and goes—like a sudden shower. I do not know how it is that the gentler influence should be the deeper and more lasting; but so it is. The still small voice of nature is more impressive than her loudest thunder. Of all the scenery in the Alps—and there is no richer on the earth—nothing is so plainly daguerreotyped on my heart as two or three lovely valleys I saw. Those heaven-piercing summits, and precipices of ice, and awfully savage gorges, and fearful passes, lie like a grand but indistinct vision on my memory; while those vales, with their carpets of green sward, and gentle rivulets, and perfect repose, have become a part of my life. In moments of high excitement or turbulent grief, they rise before me with their gentle aspect and quiet beauty, hushing the storm into repose, and subduing the spirit like a sensible presence. O, how I love nature! She has ten thousand voices even in her silence, and in all her changes goes only from beauty to beauty. And then when she speaks aloud, and the music of running waters—the

organ-note of the wind amid the pine-tree tops—the rippling of waves—the song of words—and the hum of insects—fall on the ear; soul and sense are ravished. How is it that even good men have come to think so little of nature, as if to love her and seek her haunts and companionship were a waste of time? I have been astonished at the remarks sometimes made to me on my long jaunts in the woods, as if it were almost wicked to cast off the gravity of one's profession, and wander like a child amid the beauty which God has spread out with a lavish hand over the earth. Why I should as soon think of feeling reproved for gazing on the midnight heavens, gorgeous with stars, and fearful with its mysterious floating worlds. I believe that every man degenerates without frequent communion with nature. It is one of the open books of God, and more replete with instruction than anything ever penned by man. A single tree standing alone, and waving all day long its green crown in the summer wind, is to me fuller of meaning and instruction than the crowded mart or gorgeously built city.—*Headley.*

AN ITEM FOR DRINKERS OF FOREIGN WINES.

An American physician has lately announced that having been called upon to analyze some samples of wines, he found that not one of sixteen different kinds contained so much as the single drop of the juice of the grape. The port exhibited a complicated superstructure of elderberry juice, alum, sugar and spirits, upon a basis of diluted sulphuric acid. The sherry was formed of a pale decoction of malt, flavored with bitter almonds, acidulated with sulphuric acid, and slightly brandied. The Madeira was simulated by means of hop, tea, rum, sulphuric acid, and honey. In tea, drugs, pepper, and other spices, fish sauces, oil, cheese, milk, and even flour and bread, foreign and often noxious ingredients are introduced—while to obtain pure alcoholic drinks is next to impossible, whiskey often being impregnated with strychnine, and genuine brandy only surpassed in its scarcity by the nectar of the gods. The French Government has enacted severe laws against all poisoners of wines, liquors, and other articles of human food or beverage. Yet, in despite of all the legislative care that has been taken to prevent adulterations, it is a notorious fact that mock wines are the chief source of profit in the city of Cetee on the Mediterranean. Very inferior French wines are there perfumed with various essences, to produce the peculiar aroma derived from the vintages of the Rhine, of Hungary, of Spain, and of Portugal, and the Madeira islands.—*Richmond Dispatch.*

 Of all the agonies of life, that which is the most poignant and harrowing—that which for the time annihilates reason and leaves our whole organization one lacerated, mangled heart—is the conviction that we have been deceived where we placed all the trust of life.

BULWER LYTTON.

LIGHTNING!—A writer on lightning-rods urges the necessity of closing the windows of a house after the outside has become wet with a shower. The outside is then a good conductor, and the dry air of the interior a non-conductor, and the chances are small that the electricity will enter the house.

 Money will be a blessing or a curse, according to the discretion or indiscretion of its possessor.

 Religion and medicine are not responsible for the faults and mistakes of their doctors.

 To speak harshly to a person of sensibility is like striking a harpsichord with your fists.

WHAT THE STEAM ENGINE DOES.

I'll tell you what the Steam Engine does:
 It rows, it sculls, it propels, it screws,
 It lifts, it lowers, it warps, it tows,
 It drains, it plows, it reaps, it mows,
 It pumps, it bores, it irrigates,
 It dredges, it digs, it excavates,
 It pulls, it pushes, it draws, it drives,
 It splits, it planes, it saws, it rives,
 It carries, scatters, collects and brings—
 It blows, it puffs, it halts, it springs,
 It breaks, condenses, opens and shuts—
 It picks, it drills, it hammers, it cuts,
 It shovels, it washes, it mixes and grinds—
 It crushes, it sifts, it bolts, it binds,
 It threshes, winnows, punches and kneads—
 It moulds, it stamps, it presses it feeds,
 It rakes, it scrapes, it bores, it shaves,
 It runs on land, it rides on waves;
 It mortices, forges, rolls and rasps—
 It polishes, rivets, files and clasps—
 It brushes, scutches, cards and spins—
 It puts out fires, and papers pins;
 It weaves, it winds, it twists, it throws,
 It stands, it lies, it comes, it goes,
 It slits, it turns, it shears, it hews,
 It coins, it prints—aye, prints the news;
 And to its magic, the printer owes
 The speed with which his printing goes—
 For how could his dailies and weeklies shine,
 Were it not for the tireless Steam Engine?

STEAM MACHINERY FOR THE FARM.

At a late meeting of the New York Farmers' Club, the Secretary, (Judge MEIGS) read the following interesting report on Steam for farm purposes. It is copied from the London *Farmers' Magazine* for June, 1859:

The Steam Plow—Its Progress.—We already thresh, clean and grind our corn, bring home, feed and sell our stock—all by means of that indispensable agent, steam. A homestead without a steam engine is almost as half finished as without a mistress, or a parish church without a parson. Of course, there are, still, minor matters scarcely as yet brought within the field of its operations. But these are all bound to follow, and we shall soon grub up our roots, pump our water, warm our cattle in winter and cool them in summer, as methodically as we cut chaff or winnow wheat. No wonder, then, that the recent discussion at the Farmers' Club centered almost entirely here. Much had been already accomplished, and as much or more must follow. Once realize plowing by steam, and drilling, draining, hoeing, and like work on a farm, must follow "naturally." But at this point we stop. The very Alps of our march onward have yet to be crossed. However near we are, it is palpable that we are yet in the hands of enthusiasts and patriots. The farmers hold back—they shout, "Will it pay? How can you do it? Let's see it first!" There are some tenant farmers who have taken to steam power to cultivate their lands, who believe they profit by it. But we don't hear of any of them at the Farmers' Club. That steam cultivation will come, everybody admits. But has it come? Prince Albert is about putting Fowler & Smith's apparatus to work.

At the London Farmers' Club, May 2, 1859, Mr. Mechel went fully into the subject. He has, by horse plow and subsoiler, broken up land very deep, and proposes to break it up by steam plow a yard deep.

Mr. Smith said: Steam cultivation is an accomplished fact, and profitably so—therefore is practically attained.

Fowler & Smith have been practically proved superior to horse power, in saving cost and in effect, and the Royal Agricultural Society of England has sealed it by an award and medal. Who shall say that we shall not have Scarecrows and Grubbers, by one hundred horse power, go down four, five or six feet. I have done best on a soil accidentally fourteen feet deep, by a filling in.

Halkett's Guideway Steam Cultivator is noble, simple and unerring. Boydell's Traction Engine is now drawing coals into Manchester at a *penny a tun* a mile on the highway.

Collinson Hall's Portable Engine, 320 pounds pressure, burns, in a day's work of 10 hours, 3s. 6d. worth of coals.

Lord Willoughby d'Fresby's California, a portable engine, on exhibition in 1851 at the Crystal Palace, London, is one of the most perfect and powerful engines I ever saw.

John C. Morton compares horse and steam power, and convinces me that steam is twice as cheap as horse. A farm of 200 acres can fully employ a steam engine. Small farms can agree to hire, or can keep one. Steam will do all the work in much less time than horses. At the Cattle Show, steam cut, in 3 minutes, hay into chaff, 128 pounds; roots for sheep, 314 pounds; for bullocks, 620 pounds; roots pulped, 490 pounds; thick oil-cake broken, 165 pounds; corn (wheat) winnowed in 13 minutes, 761 pounds; do. dressed, 490; do. threshed and dressed, 200 sheaves; barley threshed and dressed in 5 minutes, 100 sheaves.

Fowler plowed 6 by 9 (a 3 horse work), an acre in an hour at the cost of 9s. 2d. per acre.

On our Railway, we carry 240 tons of coal a mile in 3 minutes for two pence.

The manufacturers of England employ 150,000 engines equal to 3,000,000 horses.

Manchester, in a circle of 20 miles, has 20,000 engines. Halkett's plan is parallel rails over the field; deeper cultivation between them and no hardening the soil by carts and wagons. I can till, hoe, &c., 150 to 200 acres in 24 hours, and not a foot is set upon the soil. The whole can be drilled in 24 hours ready for seeding. I spread liquid manure rapidly. I water it for a shilling an acre; I mow grass for less than the shilling an acre.

Cost of Engines: Smith's, £500; plows 7 acres per day. Fowler's £570; plows 8 acres per day. Smith's costs per day at work, £2 3s. 4d. Fowler's costs per day at work, £2 1s. 7d.

DEFINITIONS.—Charity—The only thing we can give away without losing it.

Child, Spoil—An unfortunate victim, who proves the weakness of its parents' judgment, much more forcibly than the strength of their affection.

Competency—A financial horizon which recedes as we advance. The word is, by no means, of indefinite meaning. It always signifies a little more than we possess.

Consolation, for unsuccessful authors—"Many works," says Chamfort, "succeed, because the mediocrity of the author's ideas exactly corresponds with the mediocrity of ideas on the part of the public."

Custom—A reason for irrational things, and an excuse for inexcusable ones.

 "Kin you tell me, Sambo, de key to de prosperity of de Souf?"

"Key to prosperity of de Souf? Big words, Juno; guess you must hab been eating masssa's dicksrunary. Golly, I ai'n't learned nuff to answer dat."

"Well, chilz, 'tis de dar-key."

 A head properly constituted can accommodate itself to whatever pillows the vicissitudes of fortune may place under it.

**EXPERIMENTS WITH THE SORGOH--ANSWER
to Wm. H. Stevenson.**

EDITORS SOUTHERN CULTIVATOR—In the July number of the *Cultivator* Mr. Stevenson, after entering his protest against fictitious signatures, makes some inquiries of me respecting the Chinese Sugar Cane. I have no doubt that Mr. S. is better prepared to give me instruction on the subject than I am to communicate information to him. He, at least, has one year's advantage of me in raising the Sorgho. But as far as my information extends I am willing to give it for the public benefit.

The first question, I think is answered in the article he referred to. The fodder should not be allowed to speck and dry up. A second growth should especially be guarded against, as it destroys the saccharine matter in the cane.

I have not observed the effect on the teeth, from the use of the syrup, of which he speaks.

I do not think sugar could be profitable made for home consumption, though further experiment may remove some of the difficulties. To make sugar, either from the Sorgho or the tropical cane, successfully, and cheaply, requires costly apparatus. I mean good, dry sugar. The principal difficulty with me was getting rid of molasses. I will give my process of last year, which, as far as it goes, is simple enough, and proves that the *Sorghum Saccharatum* is a cane sugar producing plant.

I cut the cane at the stage of ripeness described in the article to which Mr. S. refers; added lime to the cold juice until it would no longer reddens litmus paper, but was careful not to render it alkaline. The latter I guarded against by testing with turmeric paper. The object was to have the juice neutral. I brought the juice to the boiling point slowly, skimming as the impurities arose to the surface. After removing the first thick scum, I boiled fast as possible until the syrup began to thicken; then slackened the fire, and evaporated slowly, until the syrup would barely run when cold. It was then put in vessels and set aside. In two or three days the mass was filled with crystals. This was all very easy, so far, but I found the draining tedious. This I did by putting the mass in a conical bag, made of thin domestic, such as is used for quilt linings. After partially draining my sugar I used it to sweeten coffee, and thought it excellent—perhaps, because it was made at home.

While I am on the subject I will describe my skimmer and boiler, which, as far as I know, are original with me, in their application to syrup making.

The skimmer is a saucer-shaped piece of tin, eight inches in diameter, with a piece cut out of the bottom two inches across, and a piece of perforated tin soldered over the opening, through which the juice escapes, while the scum is retained.

My boiler is constructed as follows:—The sides are of plank 1 1-2 inch thick, 1 foot wide and 4 feet long. The bottom and sides are of a continuous piece of sheet iron, 6 feet long by 2 feet wide; the ends of the iron being turned up to form the ends of the boiler. The sheet iron is nailed on the wood with six-penny nails. It is necessary to punch the holes in the iron for the nails. I thus have an evaporator four feet long and two wide, holding eight cubic feet, and presenting an evaporating surface of eight square feet. I rest the edges of the boiler on brick work, the fire passing lengthwise under the bottom.

I was so well pleased with this evaporator last year that I have made two others for the present crop. Another recommendation of this "homespun" boiler, is its cheapness, costing only about two dollars.

I intend making some further experiments with the Sorgho this summer and shall report accordingly. Will not Mr. Stevenson do the same? I have no doubt the

Chinese Sugar Cane will yet become a very important agricultural product.

SYLVANUS.

July, 1859.

THE AMERICAN PUMP.

ONE of the newest and most useful inventions of the day is a Double Acting Force Pump, owned by Jas. M. Edney, 147 Chambers st., in this city. It is without packing, and without suction, is exceedingly simple in its construction, and, at the same time, possesses all the requirements of a good pump, and can be used either as a well, a cistern, or a ship's pump. It is not liable to get out of order, and has but one barrel and one piston, being without guide rods, slides, chains, or pulleys. So easy can it be worked, that any girl or boy ten years old can manage it without the least trouble at 60 or 70 feet, and under 30 feet the working power is scarcely perceptible. At the discharge pipe is a screw to which a hose pipe can be attached, and water can be thrown to a height of from 30 to 40 feet. It does not lose a drop of water, and has no extra appliances from 1 foot to 100 feet. A model and pump can be seen at the office, 147 Chambers street; but those who would witness it in full operation and judge for themselves of its remarkable properties, should go to the factory, 432 East Tenth street, where a number of obliging attendants will take pleasure in showing and explaining its workings, and where the visitor can have an opportunity of handling and trying it at 20 and 65 feet. As a pump for attaching hose in case of sudden fire, either on ship-board or in the house, it will be found an invaluable adjunct. It works by hand, wind, water, and steam. Drawings and prices sent free.—*New York Express*.

VIOLETS.

I found a violet to-day!
In the budding wildwood,
Where I roamed in childhood,
Where the velvet mosses spring,
Where the robins build and sing,
There the blue-eyed darlings lay.

As I plucked them one by one,
How their pure touch thrilled me!
How their sweet breath filled me
With a vision of that time,
In the summer's golden prime,
When all things beneath the sun

Seemed to speak the joy they knew.
Tuneful streams were flowing,
Scented winds were blowing,
In the fields wild roses blushed,
To the meadows clover-flushed
I could see the mowers go.

Surely, said I, soul of mine,
Full of restless yearning,
With thy fond hopes burning,
If these simple flowers of spring
Such a sweet fore-knowledge bring;
Thou mayest dream thy dreams divine.

TWENTY-FIVE CENTS PER BUSHEL.—We were present the other day—since the frost—when a farmer of this county engaged one thousand bushels of corn at twenty-five cents per bushel—the corn to be of this year's crop and delivered next fall. This will do.—*Gonzales Inquirer*.

Wisdom is the olive which springs from the heart. It blooms on the tongue and bears fruit in the actions.

LOAFING.—There is no sight so repulsive as an habitual loafer, forever hanging around drinking saloons, and wearing away the golden hours of life in meaningless phantasy, without a thought for anything except the gratification of a beastly appetite. It is strange that men will thus sacrifice home, reputation, friends and all, for that which stultifies them and makes life only a dark and hideous dream.

A GENIAL HEART.—There are flowers of the gayest hues and rarest beauty, which bloom under the eternal snows of the Alps, and there are some natures so genial, that they wreath an atmosphere of love around them, in which they rejoice and flourish, unconscious that these vital influences are self-emanating.—*Arthur's Home Magazine.*

Home is the residence not merely of the body, but of the heart. It is a place for the affections to unfold and develop themselves; for children to live and learn and play in; for husband and wife to toil smilingly together, and make life a blessing. The object of all ambition should be to be happy there; we cannot be happy elsewhere. It is the best proof of the virtues of a family circle to see a happy fireside.

When I think of my loved dead at night in the thick darkness, my thoughts dwell perforce on the gloom of the grave, where their bodies lie; but in the morning, there are sure to come to me, with the triumphant dawn, bright thoughts of that morning-land where their souls are dwelling. And so it happens that those whom I weep for at night I rejoice with in the morning.

An extensive Grape cultivator, near Cincinnati, says, the prospect of an abundant crop was never better. He promised a few of his friends, some years ago, to give them a ball whenever he made 5,000 gallons of wine from his vineyard, and he has given them notice to prepare their dancing shoes.

Domestic Economy and Recipes.

TO CLEAR A ROOM OF MOSQUITOES.—The following, it is said, "works like a charm":—Take of gum camphor a piece about one-third the size of an egg, and evaporate it by placing it in a tin vessel and holding it over lamp or candle, taking care that it does not ignite. The smoke will soon fill the room and expel the mosquitoes.

HOLLOW TAIL!—A REMEDY!—A friend writing us from Mason county, says that a stock raiser, residing in his neighborhood, observing several head of his cattle looking very badly, cut off about six inches of the tail of the sick animals and found it perfectly hollow. In a few days afterwards the cattle were restored to health.—*Texas State Gazette.*

SORE EYES—A gentleman of large experience and close observation assures us that the following is the best remedy he has ever seen tried for sore eyes:—Take 6 grains of white vitriol, and 18 grains of fine salt, dissolve in half a pint of rain or distilled water, filter through paper, and drop a small portion in the eyes several times a day. If too strong, dilute with same kind of water.—*Nashville Union.*

VINE BUG.—I preserved my vines last year from the ravages of this little pest by placing little wads of cotton saturated with spirits of turpentine among the vines near the roots, using care to have them touch the vines. The turpentine should be renewed from time to time.—*Genesee Farmer.*

SOLID INK.—M Deonhardi, of Dresden, has invented an ink which he can form into cakes, for the conveyance of transport. The inventor takes forty-two parts of Aleppo galls, and three parts of Dutch madder, and infuses them in a sufficient quantity of hot water. The solution is filtered, and five and a half parts of sulphate of iron are dissolved in it, after which two parts of acetate of iron and one and one-fifth part of sulphate of indigo are added. The whole is then evaporated to dryness, and the residuum moulded into cakes. One part of the dry ink dissolved into six of hot water gives an ink of first-rate quality; but one of good quality may be obtained by adding only fifteen parts of hot water.

FLEAS ON DOGS.—The use of arsenic, mercurial ointment, &c., is effectual, but dangerous. A correspondent of the *London Field*, says: "I have tried many experiments myself, and have found out one perfectly satisfactory—as my groom informs me to-day, on inquiry, there has never been a flea on the dog since. It is yard dog, I allude to. I had a new wooden kennel made, and it thoroughly painted with gas-tar boiling hot and when well dried, placed the dog there without any bed; the consequence was, the fleas all left. The dog is now clean and healthy. This took place early in the spring."

TO PRESERVE HERBS.—All kinds of herbs should be gathered on a dry day, just before or while in blossom. Tie them in bundles, and suspend them in a dry, airy place, with the blossoms downwards. When perfectly dry, wrap the medicinal ones in paper and keep them from the air. Pick off the leaves of those which are to be used in cooking, pound and sift them fine, and keep the powder in bottles, corked up tight. Dr. Page, of Washington, D. C., says that herbs should be bruised or crushed while in the green state, and then dried. When so treated, they retain their color for a great length of time.—*Germantown Telegraph.*

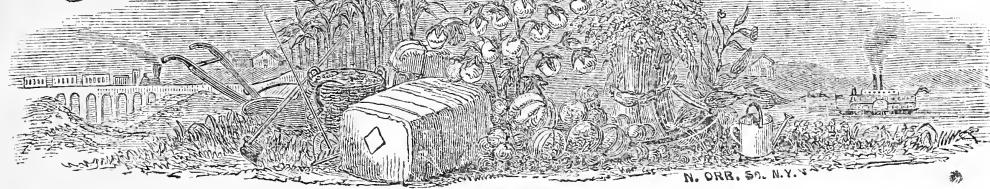
NEUTRALIZING POISON.—A "general reader" sends the following prescription to the *Pittsburgh Gazette*:—"A poison of any conceivable description and degree of potency, which has been intentionally or accidentally swallowed, may be rendered almost instantly harmless by simply swallowing two gills of sweet oil. An individual with a very strong constitution should take nearly twice the quantity. This oil will most positively neutralize every form of vegetable, animal, or mineral poison with which physicians and chemists are acquainted."

FEVER AND AGUE.—This complaint is quite prevalent in the city at this time. The Mexicans claim that they have a certain cure for it. They take a small bag of salt and place it directly at the pit of the stomach. The salt, after a day or two, turns perfectly yellow, and the patient is cured. Several white persons have tried it, as they assure us, with the same effect. The remedy is certainly ly simple enough and cheap.—*N. Y. Times.*

TO DESTROY INSECTS ON TREES.—A solution of whale oil soap will destroy the numerous insects that infest trees and shrubbery at this season of the year. Dissolve the soap in warm water, making "suds" of medium strength, and sprinkle the leaves with a syringe. This specific is sure death to the caterpillar, miller, and the army of ravagers that destroy the foliage. Now is the time for its application--*New York Evening Post.*

To take out pitch, tar, resin, paint, &c, pour a little alcohol on the place, and let it soak in about a half an h·ur. Then rub it gently, and you will find the alcohol has soaked out the glutinous quality, so that it will easily crumble out.

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D. REDMOND and C. W. HOWARD, Editors.

See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—Cotton Picking will now require nearly the entire force of the plantation. Push it forward vigorously, and endeavor to get your crop ginned, packed and ready for market before the coming on of winter rains and bad roads. Let every operation connected with the putting up of Cotton be performed in the most careful manner, as the market value is often materially influenced by seeming slight defects in management. The skillful handling and proper putting up, even of inferior grades, will always be found to "pay" well.

Corn.—Gather your Corn and put away securely in airy, tight-roofed and well-locked cribs. Do not waste a grain, or fling it out carelessly to your stock, even if you have an abundance. Husband it carefully—feed generously and plentifully, but not thoughtlessly or wastefully. In this connection, we cannot too strongly urge the economy of using machines like the "Little Giant," "Young America," and Rowe's Mill for cracking both corn and cob. Feed cutters for rough forage will also be found economical.

Cow Peas.—Gather and store away all these as soon as possible. Sack your seed peas, and keep in a dry, airy place.

Sweet Potatoes.—This crop may be dug the latter part of this month, or as soon as the vines are wilted by the first frost. A contemporary gives us the following indication of the ripeness or maturity of the Sweet Potato:—"Pull several potatoes from different parts of your patch, break them and give them time to dry, and if the fresh broken part dry over perfectly white, the potato is ripe and should be dug. But if of a darkish hue, the potato is not ripe and should be left to ripen. If dug when ripe they will keep, if not they will rot." Put up your Potatoes in small "banks" (25 to 30 bushels) and reject all cut or bruised roots. See, also, that they are perfectly dry before banking. Let the foundation of the banks be 12 or 14 inches higher than the surrounding surface; on an eleva-

tion, where water will not settle or stand. [See a capital article on this subject, on another page of present number.]

Egyptian and other Winter Oats, Rye, Barley, Clover, Lucerne and other hardy grasses should be sown at once. Plow deep, pulverize finely and manure heavily for all these crops, if you desire proper remuneration for your labor.

Hay.—Many varieties of native grasses may yet be worth gathering, to eke out winter supplies. But do not allow the grass to dry up and become worthless, before gathering. The proper time to cut is while it is in blossom. Pindar and Sweet Potato Vines are good fodder, when properly cured and stowed away. They should be cut up before feeding out.

Turnips.—It is late for field crops of Turnips; but, if your early sowings have failed, try again now. We have known good crops made after the first of October. Bring your growing Turnips to a proper stand, and keep the ground clean and open.

Pumpkins should be gathered as soon as ripe, and stored on well aired scaffolds or tiers of rails, one above the other, so far apart that the layers of pumpkins cannot touch or rest upon each other. Put up in this way, with a slight covering or protection from the frost, they will keep nearly all winter. There should be a water-tight roof over the scaffolds, and straw may be used as a protection from frost. Placed in a heap or pile, pumpkins soon decay and become worthless. Before feeding to your stock they should be boiled up, with a sprinkling of meal or bran.

Hedges of the Osage Orange, Cherokee and Macartney Rose, Honey Locust. Evergreen Thorn (*Crataegus Pyracantha*) *Pyrus Japonica*, &c., &c., may be set out the latter part of this month, or as soon as the leaves of deciduous trees fall.

THE GARDEN.—Sow Cabbage, Turnips, Parsnips, Carrots, Lettuce, Radishes, &c., &c. Prepare a bed in such a way that it can be protected against frost. The safest way of doing it is by excavating it 1 foot below the general surface, and surrounding it with planks. On such a bed transplant your young cabbages, and protect them in cold weather for spring use. Haul plenty of manure on

your garden, have it well spaded, burying under all enriching animal or vegetable matter. Transplant Brocoli, Cabbages, Celery, "Collards," &c. If your Cauliflower and Brocoli have not made heads by the latter part of this month, take them up, and transplant them under a shed where they can be protected, that they may head. Work and manure your Asparagus beds, not forgetting to give them a liberal top dressing of salt before spring. Do not suffer weeds to cumber your garden and exhaust the soil, but turn them under as soon as possible, and you will find the soil much improved by next spring. Save all old bones, soap suds, dead leaves, decaying vegetables, &c., &c., and make up into compost heaps for future use. Plow and subsoil your ground for the planting of your orchards, directions for which were given in our last number. *November, December and January* are the best months for planting trees, vines, &c.

STRAWBERRY BEDS.—The best soil for this delicious fruit is a sandy or even a gravelly loam, moist, and rich in vegetable manure. An excellent compost for an acre of ground would be 60 bushels of leaf mould from the woods, 20 bushels of leached ashes, 5 bushels lime and 3 or 4 quarts of salt. Mix thoroughly, let it stand 2 or 3 days, scatter broadcast and plow in. Then harrow or rake the surface, making it fine, and set your plants in rows 3 feet apart, and 1 foot to 18 inches in the row. After the plant becomes well rooted, cover the whole ground with partly decomposed leaves from the forest, leaving nothing exposed but the stems and fruit stalks of the plants.

SHALL WE IMPROVE---OR REMOVE?

THIS question is now agitating the minds of thousands of persons in the older portions of the Southern States. It is not a question of necessity arising from excessive population. In Georgia, for instance—but one-sixth of the area of the State is under cultivation. It is a question of loss or gain—of dollars and cents. In Europe or at the North, a young man with small means finds it difficult to obtain land for cultivation from its high price.—He resorts to emigration as a means of becoming a land holder. This state of things does not exist at the South at the present time. We refer to that portion of the South below the line to which improved farming has extended. In those portions of Virginia and Maryland, in which limeing and deep plowing are practised, and clover and the grasses are cultivated, land has rapidly obtained a great comparative value.

In the older cotton States, land of an average quality can be bought at nearly as low a rate as fresh land in the South-west. Unless in places remote and inaccessible, which end then can be accomplished with the greatest economy and profit, the settlement of a plantation in the woods, or the restoration of an exhausted farm to fertility? As a general rule, we affirm that it is attended with greater profit to restore an old farm to fertility, than to incur the expense of removal, and make a settlement in the forest. This is stated as a general—not a universal rule. There are cases in which an exception to it might occur.

Upon this subject we have a right to speak with a good deal of confidence. We know what it is to settle in the woods. Our knowledge of frontier life has been sufficient to enable us to "know every rope" in the rigging. We might commence the chapter of our experience as Mr. James begins his books—"Tis twenty years since," &c. We know what it is to be seven or eight miles from Church, Postoffice, Physician and Mill, and to be bereft of the charms of social life—to hear the owl hoot and the wolf howl—to make abundant crops and to be unable to sell them, but to be very certain to be compelled to pay exorbitantly for all articles of domestic supply, which it is necessary to purchase. The romance of life in the forest is very well upon paper, but it changes its aspect marvelously when enacted upon "terra firma." As a result of long experience and observation, our counsel is to those who have comfortable homes in the older parts of the South to stay where they are, and make their poor land rich, which they can do with greater profit in the long run, than to remove to a new country.

There are few subjects in the political economy of the South of greater importance than the one now under examination. Heretofore our people have been almost Nomadic tribes—they have been migrating as the Arabs.—Hence so large a portion of the South has become an "Arabia Deserta." Every restive impulse of our population which is checked is a public benefit. Every permanent dwelling—every school-house, college or church—every factory—every Railroad, is of value in giving permanence to our population. Above all, every Agricultural improvement developing the recuperative energy of our soil, giving a juster estimate of its inherent value, and creating an additional attachment to it, will tend to bind our people to it as to a treasure which may not without folly be deserted. The accomplishment of this grand purpose should color our legislation. A measure of doubtful utility otherwise, may, from its bearing upon this result, receive our hearty approval. Apart from its revenue, what sensible man doubts that the Western & Atlantic Railroad has a thousand times repaid its cost to the State of Georgia in arresting and binding to the soil multitudes, who otherwise at this moment, would have been living on the other side of the Mississippi river.

That which is a public is also a private benefit. Poor Richard never uttered a wiser sentence than when he said:—

"I never saw an oft removed tree,
Nor yet an oft removed family
That thrive so well as those that settled be."

In this utilitarian age, it might seem a weakness to speak of sentiment in connection with this very practical subject—yet we confess to a little of that weakness.—Slavery creates such a community of interest in the Southern States, that we are in some respects almost one people. We have an Institution among us, the *name of which* alienates from us a large proportion of the good of other lands, the *fact of which* would endear us to them if they understood it—but they do not and will not understand it. Our position as to this particular is one of

moral isolation. While this isolation does not create in our minds an instant's doubt as to the rectitude of the Institution, it binds those among whom it exists more closely together. In this aspect, the whole South is the common home of the Southerner. Yet we have the metes and bounds of States. There is one form of State pride which is silly; there is another form which is commendable. It is akin to that feeling which causes us to congratulate ourselves upon a virtuous ancestry. It is the extension of home feelings beyond the paternal acres to the limit of the State which gave us birth. It is natural to the noble spirit to feel a reluctance by removal, to withhold from his native soil the aid of his mind and fortune in the generous contest of improvement.

The ties which ought to bind us to the homestead are still stronger than those which bind us to the State. Who shall take care of our dead when we have abandoned them to the stranger? In wandering over deserted plantations in the older portions of Georgia and South Carolina, in the pitiless desolation which reigns, no feature causes us so to shiver with a moral chill, as the family graveyard. It is the embodiment of a filial impiety. Its walls crumbling or thrown down by great tree roots which have protruded from within—its fallen slabs a cover for the rattlesnake, or its dense shade a shelter for the uncleanly swine; it exhibits the educated Anglo-Saxon, as being more deficient in refined reverence, than the untutored Indian, who never passes a resting-place of the dead without if possible, casting another stone upon the pile which protects the remains beneath from desecration.

Besides the violence done to our moral nature by removal, in separating us from the graves of our fathers and our children, it breaks up many of the most endearing ties which unite us with the living. We can never replace the friends of our childhood. In new countries and amid new scenes, valued and valuable friendships may be formed. But the common recollections of the school-room and play-ground and river—the battles and reconciliations—the innocent entanglements with the gentler sex—the hair-breadth 'scapes from the vigilance of the lynx-eyed master—the gradual growth to manhood—the struggles mutually encountered—the temptations bravely overcome; all of these give to the friendships of our youth an intimacy and a cordiality which we may look for in vain among those contracted amid new scenes and in later years.

It should not be forgotten that in removing to a new country if our lives have been virtuous, and our character for estimable qualities has been well established by years of diligent performance of duty, we lose the benefit of the past, and as a stranger we must teach strangers slowly to value us. We begin life in many senses over again.

These deprecations are legitimate subjects of consideration. Life has sufficient rough points which we must encounter without ourselves needlessly multiplying them. Our sky will be sufficiently overcast without our putting out the light of a single star that glimmers in it. Our temptations from without and within are sufficiently formidable without our loosening a single restraint which a

well ordered and established society imposes. He who removes with his family to a new country always does so at a moral and mental hazard to himself and them. But these are topics on which we may not longer dwell. We have but made suggestions. The thoughtful mind will readily conceive and elaborate them.

The inconveniences of emigration with a family and negroes are very great. Railroads have diminished, but not removed them. If we wish to buy cheap fresh lands we must go beyond the hearing of the steam whistle.—The humane master will accompany his servants. He who has not made such a journey is hardly prepared to understand its annoyances: The slowly moving wagon—the jaded and sometimes failing horses—the merciless rain—the pinching cold—the slashing mud—the surly refusal of accommodations from inhospitable men; these and numberless other vexations render the emigrant's journey a sad chapter in his history. And when he has reached his destination, the unbroken and formidable forest, the comfortless cabin, the sight of his wife and children destitute of those things which they have been accustomed to regard as necessities of life, will cause him sorely to regret the old Homestead. He must expect serious and sometimes fatal sickness. It is immaterial what residents in a rich, new country say as to its healthfulness. *Aesop's Fox* story as to caudal appendages, is as true now as it was in his day. It is a law of nature from which we believe there is no departure, that rich fresh lands turned up by the plow, and deadened trees, erect sponges for the absorption and retention of moisture, and both acted upon by a fiery Southern sun, will produce sickness among the first settlers. In a few years, this sickness may pass away; but with it may also have passed away some dear ones with whom it was the breaking of heart-strings to part. Some portions of upper Georgia, which prior to their settlement, gave every indication of healthfulness, in the third and fourth years after their settlement were scourged by disease, scarcely a family escaping. Those same sections are now perfectly healthy. During the interval of disease, the population was decimated.

This is the dark side of the picture. To the adventurous man, a life in a new country has its charms. The merry horn—the faithful hound—the bounding deer—the open woods—the eager chase—the successful shot, give a pleasure to which the staid denizen of the city is a stranger. To some natures it is a relief to be freed from the onerous restraints which artificial society imposes. The pride of the heart is gratified at seeing the sturdy oak which had defied the blasts of a century, topple and fall before the strokes of the negro's axe. It is a tribute to our manhood, when we reflect that we have caused the forest to disappear, and conceal the soil once the hunting ground of the idle Indian, or the lair of the wild beast, with the snowy Cotton or the waving Corn. When years have elapsed, and the emigrant sits in his afternoon porch and looks over the well-ordered farm which smilingly returns his gaze, it ministers to his self-respect to say—"By years of patient fortitude and honest toil, I have done it." This dark cloud has its "silver lining."

We may thank God that he never allows another night to "shut in upon midnight." The morning always comes, and the genial light of day. When duty calls to the encounter of difficulty, it should be met with resolute energy. But it is unwise, voluntarily, to enwrap ourselves with the dark cloud's folds, merely that we may see how brightly, by contrast, the silver shines on the other side.

We have considered the social and moral inconveniences of removal to a new country. There may be circumstances under which it is best to encounter them. These are exceptional cases. The general rule bears in the opposite direction. The chief actuating motive in most cases is gain. This motive, so far as it applies to persons living in a healthy section, in which the land, though originally fair, is exhausted, is, we think, fallacious.

The enquirer asks: "When I can buy an acre of fresh land at the West for less money than it would cost me to manure an acre of land at home for one year, is it not good economy to emigrate?" Ordinarily, we think not.

Every one who has cultivated new ground knows that generally the first year's crop scarcely pays the expense of cultivation, to say nothing of the expense of clearing. The annoyances from roots and grubs last for three or four years, and from stumps for many years afterward. During the time that the roots are rotting, none but the most imperfect farming tools can be used. In new ground the hand can cultivate but few acres as compared with old land. In the latter, turning plows, subsoil plows, the harrow and cultivator can be used, instead of the narrow, and therefore expensive coulter or scooter.

If we manure old land judiciously, *the manuring pays as it goes, and leaves us beside our ordinary crop, a net gain in the increase of our capital by the improvement of our land.* Will the readers of the *Cultivator* ponder the above sentence? It pretends to no originality—it contains no new truth. It is the repetition of an old truth, which, however, is denied or overlooked by those who would abandon old improvable land, in the hope of greater gain in the Western wilds.

If we consider the cost of clearing and fencing to be equal to the cost of manuring (we can show a method by which the cost of manuring may be the least expensive of the two;) and if on the old land, with a subsoil plow, which we cannot use on the new ground, we go down four inches deeper than the plow has gone before, then on the old land we gain a new acre, we have the increased crop, the diminution of labor and the improvement of the soil.

The enquirer still asks: "How am I to get this manure? If you have not live stock enough, which every good farmer ought to have, to manure all the land you cultivate with the plow, then buy the manure—guano, lime, bones, ashes, salt, plaster, or phosphate of lime."

"But I have no money to buy manure with, my farm barely covers its own and family expenses." Then sell something and get the money. If a farmer owns 1,000 acres of land on which he makes nothing, if he will sell five hundred acres, and with the money obtained, will improve the other five hundred, if he is a good manager

he will find an improvement in his income. In farming, as in other pursuits, it requires money to make money. It is better to farm profitably on a small scale, than to work without profit on a large scale.

It will be observed that we have recommended purchased manures only in the absence of farm-yard manure, or with a view to the increase of that manure. Putrescent manures should be the chief reliance of the farmer. Not because they are so much cheaper than the concentrated manures, as from the fact that they afford a key to a system of Agriculture which keeps in view the improvement of the soil.

We were greatly surprised at the position of a very sensible writer in the August number of this journal, to which we shall more fully refer hereafter, who says: "The idea that stock enriches the soil, seems to me merely speculative." If this be true, what becomes of the Flemish maxim, "without grass, no cattle, &c.?" We were also greatly surprised at the development as to this point of the recent census of Hancock county. In the enumeration of different kinds of property, live stock is omitted. There is a heading, "All other kinds of Property," \$468,838. The live stock—horses, mules, cattle, hogs, &c., are probably included under this head. There are 339,483 acres of land in the county. If we make a small deduction from miscellaneous property, this would leave an average of about one dollar per acre for the stock of the county, including work and pleasure animals. This is an extraordinary showing. It is extraordinary because no where have we a set of more intelligent and spirited farmers than these Hancock gentlemen. Notwithstanding their large crops, the lands of the county which produce them, average about five dollars per acre in value. There is something wrong somewhere. We think we can put our finger upon it. It is indicated by this census return. It is the absence of an estimate of live stock, proportioned to the extent of ground cultivated. The average stocking of an English farm costs about \$50 per acre. The united value of the lands and negroes of Hancock county is \$6,829,927. The stocking of the lands alone, according to the English estimate, would amount to \$16,974,000—more than double the present value of the lands and negroes together. We do not offer this heavy stocking as an example. We are not yet prepared for it. But we repeat the remarks that it is the duty of the farmer to keep stock enough to manure all the land he works with the plow.

But it is said, "we could not support such a stock if we owned them." Perhaps not at once. Therefore our advice to buy manure until that stock can be supported. No time should be lost in preparing to support them. In a Cotton country, we question whether either cattle or hogs can be raised to much advantage beyond a full supply for domestic consumption. We must cut hay for the cattle, if we would have those which are good for anything; the manure of a shuck-fed cow is but little better than the dry shucks themselves. We must plant corn for the hogs, and both are expensive. With proper winter pastures, horse and mule colts are both profitable, for they can thrive by grazing in the winter. The animal which best fits the cotton planter is the sheep. It requires no feeding if proper pastures are provided. It is attended with the least trouble. With moderate precaution its fleece is our most certain crop, less exposed to loss from dogs than either cotton or wheat from diseases and disasters to which both are liable. So certain and cheap do we conceive this crop to be, that we reiterate the remark made on another occasion, that with proper pastures, it costs less to raise a pound of Merino wool worth fifty cents than it costs to raise a pound of cotton worth ten to twelve cents. We ask the enquiry of cotton

planters into the truth of this remark. The value of sheep as an instrument of enriching land may be learned from Mr. S. S. BRADFORD, of Va., who says in a letter to us: "My own land cost me about \$25 per acre in 1853. I introduced sheep with a view of getting the largest profit compatible with constant progression towards fertility, at the smallest expense of labor and capital. I should be very sorry to sell it now, (1859) at \$10 per acre, and its present yield of wheat and corn is larger than when these cereals alone were grown." Mr. BRADFORD's flock consists of 1,000 Merino sheep. This gentleman, with others of high authority, considers the droppings of 1,000 sheep for one night equal to 200 pounds of Guano.

Mr. WALLACH, in the August number of the *American Farmer* gives his method of using sheep in the improvement of his land. "About the 1st of May, I commence folding the flock in the open air every genial night. To this end, I use eight hurdles made of pine poles, of perhaps an inch and a half to two inches in diameter, which hurdles are easily handled by a boy of fourteen years of age. At night a servant sleeps within a few yards of them, in a light shanty or watch house built on wheels, in order to protect them from all intruders; a few bells on them give notice of any stirring about in the hurdles when they should be at rest. They are, of course, thus folded on galls or portions of the field requiring most manuring. I permit them to rest three nights only on the same spot. The first night, ere folding them, I cause clover and orchard grass seed to be sprinkled where they are to lie. That night their little hoofs harrow the seed in far better than can possibly be done by the use of any machiae. Next morning a light covering of straw is put upon the ground in the fold, and on that covering they lie two nights more, saturating it with their urine and leaving really an astonishing deposit of manure in it; for one who has not hurdled sheep will be surprised at the extent of their voiding in a single night. Wherever I have thus folded them, young clover and orchard grass are rapidly showing themselves from beneath the straw."

In order to sustain a flock of sheep of sufficient size to render it an object in the improvement of the soil, we must have good pastures. For summer it is not difficult to provide. For winter, we must prepare wood pastures, sowing them first in rye and afterwards with grass seeds to be trampled in by the grazing animals. Our now idle woods may be thus made the easy instrument of renovating our old lands. Will the cotton planter think of this suggestion? How will it interfere with his cotton crop? Two old negroes can well take care of 1,000 good sheep. They will manure from two to three hundred acres of land annually. There is, in this case no purchase of manure—there is no difficulty about hauling barn-yard manure up steep hill sides. The wool crop will keep if we wish to hold it over—it will always command cash if we wish to sell at once. It is our firm belief that on a farm of 1,000 acres, with the usual proportion of wood land, the keeping of 1,000 sheep, (besides the value of the fleece) provided with proper pasture, will enable the farmer to raise more cotton than before the sheep were kept. Such a farm would improve in value rapidly.

We had designed to incorporate into this paper the answers to some questions proposed by us to a gentleman in Germany, and which will be found in another column—but our already extended remarks forbid it. Let him who contemplates removal, pause and give the old farm another trial. Let him estimate the cost of his journey of exploration—the loss to his interests from want of the master's eye during his absence—the expense of a removal of his hands—the value of their time during the journey and during their period of forming a settlement in a new country—the sacrifice of articles too bulky for transportation, and the re-purchase of the same at a high price, and

then let him invest this sum in a judicious improvement at home, such as preparing woods pasture, draining, flooding, or purchase of manures. He will get back his investment with a handsome interest. Mr. DAVID DICKSON tells us in the August number of the *Cultivator*, to buy "Guano for cotton the last of March or the first of April; commence selling cotton in September—in six to nine months you will have the money invested in guano back with the profits."

The suggestions we have offered are upon the presumption that the designed improvements are of a permanent character. It is a part of a system of improvement to consider that a field once put in good heart, is afterward by a judicious rotation of crops to be kept in a constant state of amelioration. A fitful, spasmodic effort, followed by the same system of culture which has brought the land to its present condition, is little worth, and might as well be omitted, for it will end in disappointment. It is a feature of the proposed system to consider it as necessary a part of a good year's business to make money by the improvement of our land, as to make money by the sale of a large crop.

We have spoken of the pleasure enjoyed by the emigrant in surveying the fields which he has won from the forest. This pleasure is the result very much of self-denial, fortitude and muscle. He who contemplates an impoverished farm rescued by himself from sterility, beholds the results of mind as well as labor, and his gratification is therefore of a higher order. Agriculture is rapidly becoming a pursuit not of idlers who inherit and squander estates, an occupation not of men who know no other exercise of their powers but the employment of animal force, but a profession dignified by its requirement of varied and commanding knowledge.

For our young planters there is an honorable and lofty mission. Let them worthily perform it. Not by ingloriously deserting their native soil, but by devoting their manly energies to its improvement, thus ministering at once to the increase of their own fortunes and the prosperity of the State.

H.

PIE-APPLE MELON.

WE republish the following from a former number of our journal, by request of a lady subscriber:

Let the melons remain on the vine until they begin to turn yellowish—then gather them carefully, without bruising, and put them away in a cool place for winter use. When you wish to cook them, peel off the skin and cut up the melon small, taking out the seeds, soft pulp, if any, &c. Put them in a preserving kettle, with just enough water to keep them from burning, and stew over a tolerable brisk fire for three or four hours, or until the whole is reduced to a soft, pulpy mass, free from lumps, and thoroughly done. You have, then, a substance resembling green apples stewed, and by adding a little sugar and lemon juice to it, and making it up with the crust in the usual way, it is impossible to tell it from a fresh apple pie. The lemon juice is necessary to give it flavor, as it is rather insipid without it.

If you desire a pumpkin or custard pie of the melons, stew as above directed, but omit the lemon, and bring the pulpy mass to the proper richness and consistency by the addition of sugar, milk and eggs. Little of either of these ingredients will be found necessary—only sufficient to give the melon color and flavor. If skillfully prepared, these melons will be found an important auxiliary to the housewife, during several months in the fall and winter. We have kept them sound and hard until March.

Though the great book of nature lies open to all, how few there are who so read as to understand it.

THE SOUTH—HER STRENGTH, RESOURCES,
&c.

EDITORS SOUTHERN CULTIVATOR—To me it is past comprehension, how our people are clamoring so much about that which only keeps prominent a set of noisy politicians. Much talking about the repeal of the absurd laws on importation of Africans; true it seems to reflect upon us, but no sane man believes anything of "piracy"; if language be true, the very idea carries its own negation; then comes up equality in the South and North as regards influence, reminding me of the fable of Hercules and the wagoner. Why should we not close up our mouths and go to work to bring about equality? "We cannot!" That is the language of the slave, of the indolent, of the craven. I assert we can, and if you and other editors of the periodicals of the South will be true to our own interests, it shall be done in 10 years. Suppose the North have the advantage in numbers, in voters, what of it? The time was when the South had influence, not for her votes, no sir, she had in union, a talent, a devotion to home; her independance gave her position. The North has gained not more the supremacy in numbers than in control of our finances, our machinery, making our supplies from a pin head to the costly carriage. We are as devoted a people to the cotton bale as ever were the worshippers of Baal.

And, like all such idolaters, we glory in having the wheel of Juggernaut to run over us.

Our preachers preach up to us peace, lawyers (all are politicians) counsel some one side and some the other, as their judgment leads them to believe they will be promoted, agricultural writers spin long yarns of chemical affinities, political writers, like the sea bird rejoicing in a blow, are keeping up abstractions. The few feeble voices who counsel building up home are too tame—no smell of gunpowder, no tinsel, or red flannel—they are never heard.

We have Conventions, gas, resolves, &c., like clouds without rain, to deceive.

Imagine it possible that my adopted State, your adopted State, would to a man attend to his own home interests and as wise men should do, not look to what people will say; what would be the result in 10 years? Can either of us conceive the result? I think not. If it was not that my neighbor made 8 bales of cotton, 10 or 12 or 15 bales to the hand, few of us would so exert ourselves. We would pay more attention to our homes, rear stock, make bread and meat, fix up little comforts and provide luxuries, though we sold less; yet, as our wants would be fewer, we would have more cash—that is, few wants to satisfy, we would need less to buy with.

As it is, we must discard an old carriage and buy a finer one, throw away steel forks and supply silver; change our furniture once again, and our clothes three or four times, everything else in the same category, build up the North, feed the flies that gain strength to destroy our vitals.

No machinery South, and if one is simple enough to undertake it he is a by-word—a theorist. No grass for stock, "ain't it our business to kill grass." We are the veriest dependants on earth, and no wonder we are vassals. None is so great a slave as him who has not the spirit to be free.

Give me 10 or 12 men of spirit and energy in each State, start wagon making, wool factories, cotton factories, shoe factories, hat factories, paper factories, free each one from taxes for 5 or 10 years; every man who makes his corn and meat give him a bonus in form of reduction of taxes, make State expenses to come more out of the extra extravagances—no agrarianism, I detest it as I do the worship of a cotton bale—give every inducement to those who would build up home, give credit to the man who increases the fertility of his broad acres; yield no palm of

excellence to him merely because he grows 10 or 20 bales per hand, unless it be connected with an improving soil—which will not be for years at least. Discountenance the principle which inculcates as a first, a leading question—"how many bales per hand?" but let it be: what is your increase per acre? how many children raised? how much corn, meat to spare? Give me this, the better policy, and I will guarantee with my head, that the South though she be a mere fraction, will rule the destinies of this great nation. We are running off farther and farther from the policy that governed our people half a century since.

I remember well when it was the policy to make not only bread and meat, raise horses and cattle, but to make the plantation clothing, and no idea of sending abroad for a plow, or wagon, harrow, &c. Now, how is it? Shame, where is thy blush? Even our shirts and drawers are not made at home. And, sir, be it known, even negro clothing is made at the region of sunrise and sent out here towards the setting thereof. I have seen a factory with 50 to 100 sewing machines, driven by steam power and attended by Yankee galls, making up negro clothing.

Where are we drifting to? Where should we drift to? Do we deserve any better? Oh! for a few people and a new country, where we could make our dying bed and be away from such a people, recreant to any duty. Sacrificing the best spot of creation to mere indolence of mind and body. Possessed I the mind of a Webster, Calhoun, Clay, Preston, Harper, Prentiss, &c., &c., I would visit every court house in the entire South and harrangue our people to duty. I would pray them, cease calling on Hercules, put your shoulders to the wheel, make our homes independent and bring the world to our feet.

P.

August, 1859.

STANFORD'S WILD OAT GRASS.

REV. C. W. HOWARD—A year or two since, I sent you a small parcel of my Wild Oat Grass seed, that you might see whether it suited your lime stone country. Did it fail with you, or did you neglect to try and see what it was worth? or have you lost the seed? If so, I will send you another parcel, as it is, beyond doubt the best grass for all purposes that has as yet been cultivated, and can be cultivated at less expense than any other grass, either for hay or pasture, and of this I have assurance from many farmers from Virginia to Texas, who have tried it. I see by the *South Countryman*, *Southern Cultivator*, and the *Field and Fireside*, that Orchard Grass is recommended as the best grass for all purposes; but, having, for the last five years, cultivated both these grasses, as well as all others that have a good reputation, I differ in opinion with those who recommend the Orchard Grass, because the Wild Oats will do better and produce a better crop than any other.

Because it affords a winter pasture.

Because it will last and produce a luxuriant crop for five years upon the same ground without either labor or manure, and because it will accommodate itself to every soil and climate so far as it has been tried. I have not tried it on wet lands nor in the woods, but believe it would do well, or as well as any other grass in either, except that on wet lands Herds Grass might do better.

For these reasons I write you, in order to ascertain whether you tried an experiment with the seed I sent you, and if not, so as to again send you some seed.

In every part of the country where I have sold or given seed I receive the highest commendations of it, and I do believe that its discovery is the greatest discovery of the age as to grasses.

I am pleased to see that you have become co-editor of

the *Southern Cultivator*, and believe the joining the *South Countryman* will be of advantage to both.

I should be glad to have you reply, either directly or through the *Southern Cultivator*. Having myself no doubt of this Grass, I do not fear an unfavorable report, and certainly will not lend my aid to anything like a humbug.

Respectfully, &c.,

JNO. R. STANFORD.

Clarksville, Ga., July, 1859.

The grass seeds of which Mr. STANFORD writes in the foregoing letter were received—their receipt acknowledged in the *South Countryman*. The seeds were sown and have succeeded perfectly well. We have the Tall Meadow Oat Grass growing side by side with the Stanford Grass. There is no perceptible difference between them. Our impression is that the Stanford grass is one of great value. But our trials have not been sufficiently extensive, or of sufficient continuance to warrant a positive opinion. The certificates in the advertising columns of this journal, will justify any planter interested in grass culture in giving the Stanford grass a full trial.

Mr. WINN, of Marietta, has the same grass growing very well on Cobb county upland. The person who gave Mr. WINN the seed procured it somewhere in the West. The seeds of the same grass, were sent us by a gentleman in Hall county, who also procured it from the West, probably from Oregon. It is undoubtedly a native grass.

Mr. GEORGE H. WARING, of Habersham, who has now about 60 acres in grass of various kinds, gives this grass decidedly the preference over any other grass, both for hay and winter pasture. He has about three acres of this grass which he considers identical with the Tall Meadow Oat. Mr. WARING makes an extraordinary statement in regard to its yield in hay. The produce of a piece of ground, 90 feet by 10, was weighed by him and the weight was 210 lbs. This is at the rate of five tons per acre. This is an enormous yield—much in advance of anything that can be done at the North. Persons interested in this subject by referring to our "Essay on Grasses," will find the opinions of several valuable agricultural authorities in reference to this grass. We concur with Mr. Stanford as to the want of permanence of the Orchard Grass—a 40 acre pasture was sowed by us ten years since in Red and White Clover, Blue and Orchard Grass. The Red Clover and Orchard Grass have disappeared, the Blue Grass and White Clover have taken possession of the ground. We value the Orchard grass chiefly for its immediate return, and would always sow it with some more permanent grass, unless it was used with Red Clover, in convertible husbandry for improvement of the soil. It remains to be determined by time whether the Tall Meadow Oat Grass is more permanent than the Orchard Grass. Either of them, we presume, will last quite as long as it is desirable to retain arable land in pasture or for meadow.

H.

 Let no one suppose that by acting a good part through life he will escape slander. There will be those even who hate them for the very qualities that ought to procure esteem. There are some folks in the world who are not willing that others should be better than themselves.

 We give the following in answer to the inquiries of "A SUBSCRIBER," on page 274 of our September number:

ASPARAGUS.

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|--------------------------------------|---------------|
| <i>Asparagus officinalis</i> , | of Botanists. |
| <i>Asperge</i> , | French. |
| <i>Esparragos</i> , | Spanish. |
| <i>Spargel</i> , | German. |

"THE Asparagus is a hardy perennial, of universal cultivation, and every year is coming more and more into use. There are only two distinct varieties, the *Purple-topped* and the *Green-topped*. The former is most esteemed, and may be distinguished by the closeness of its heads, which is of a purple reddish-green color soon after it springs forth. The supposed variety, called the "Giant," on account of its size, owes its excellence chiefly to superior cultivation.

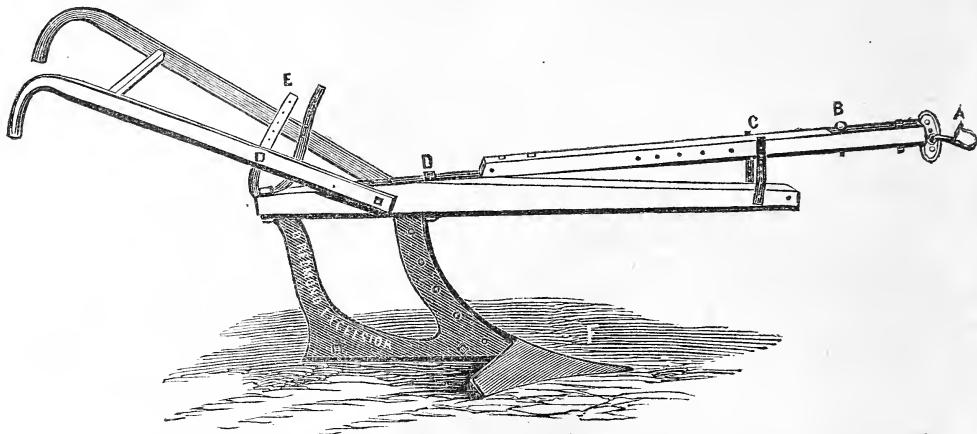
"PROPAGATION AND CULTURE.—This plant may be propagated by seeds; but when a new bed is formed, time will be saved by procuring strong one-year-old plants from some gardener, and planting them as soon as possible, without exposure to the air, in drills, one foot apart, and nine inches from plant to plant, in finely prepared beds, 4 or 5 feet wide, with the crown of the roots two inches below the surface, drawing the earth over them to keep them in place.

"The best period for sowing the seed is in early spring, say at the time of the flowering of the peach tree. The seed should be thinly sown in drills, from one and a half to two inches deep, and eighteen inches from drill to drill. The ground should be a rich sandy loam, well pulverized and manured. In the course of the season, the young plants should be frequently hoed and kept free from weeds. In regions subject to severe frosts, the roots should be protected in winter with a covering of litter, to be applied late in the fall.

"The ground for an asparagus bed can scarcely be made too rich. It should be spaded or trenched at least two spades deep, and thoroughly intermixed with half-rotted manure. From twenty-five to thirty pounds of common salt should be applied to each square rod of ground, well incorporated in the soil to a depth of four or five inches. The beds may then be formed, and planted as directed above, and during the second summer, no further care will be required than keeping the plants clear of weeds. The following winter, if the climate requires it, cover them with rotten manure to a depth of three or four inches, to protect the crowns from frost. The first two years, the plants may be allowed to run up to stalks, in order that vigorous crowns may be formed for the succeeding crop.

"After the third year, the stalks should be annually cut down quite to the ground, late in the autumn, where the climate is severe, and a dressing of well-rotted manure spread over the roots to the depth of three inches, with the double object of protecting them from frost, and of fertilizing the soil. As soon as the ground opens in the spring, the covering of manure should be forked or spaded in, to a depth of three or four inches, taking due care not to wound the crown of the roots. Then evenly level the surface of the beds with a rake, and a full crop may be expected to rise. As soon as the shoots reach three or four inches above the ground, scrape away a little earth, and cut them off in a slanting direction, about three inches below the surface, taking care not to wound the advancing buds. Do not extend the cutting beyond the month of April."

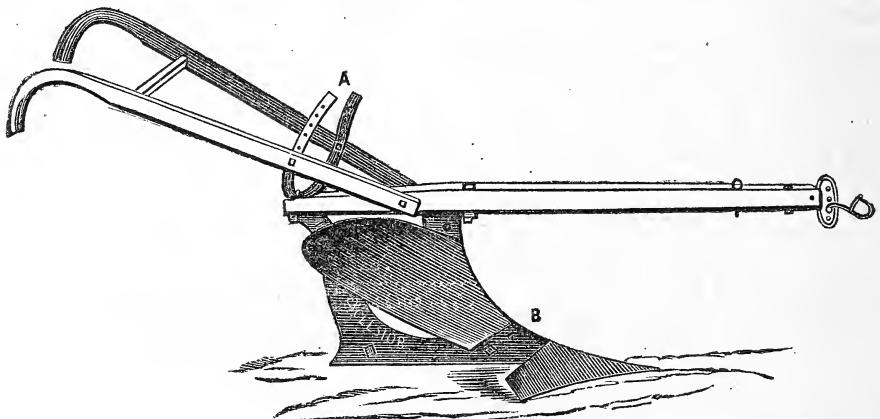
 Industry is an excellent guard for virtue; the more active your life, the less opportunity have the passions to corrupt you.



EXCELSIOR PLOW--UTLEY'S PATENT, WITH REDMOND'S IMPROVEMENTS.

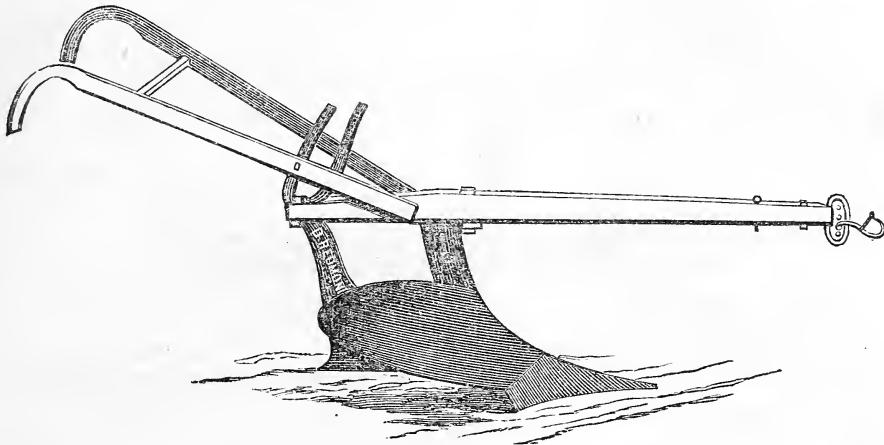
[EXPLANATION.—A, adjustable clevis; B, extra, or elongated beam; C, rack, for elevating or depressing extra beam; D, iron sliding strap, for lengthening or shortening extra beam; E, rack, for elevating handles; F, improved point, for subsoiling, trenching, &c.]

We take pleasure in presenting to our readers the subjoined very correct pictures of a new and improved Plow. We purchased the Patent Right of this Plow from Mr. UTLEY last year; but, upon trial, found the original pattern so imperfect that it was necessary to re-model it entirely. The above cut represents the Plow with an extra beam, which can be *elevated* and *lengthened* at pleasure. This form of Plow is especially adapted to *deep tillage*, *subsoiling*, *trenching* and *digging ditches*. In doing the latter, a long whiffle-tree (8 or 10 feet) is used—the horses or mules walking on the surface outside of the ditch, and as the plow passes back and forth, loosening the hard soil at the bottom, the latter is rapidly thrown out by the hands who follow, with long shovels. For *deep tillage*, with (comparatively) light draft, we believe the above form of Plow to be unrivaled; and we very confidently recommend it for the preparation of orchard land, trenching of Vineyards, digging of ditches (in old land) and in all other cases where *deep plowing* is desirable. [There are two sizes of this Plow, adapted respectively for *one* and *two* horses or mules.]



This view represents the same Plow, with the mould-board or wing attached, and set for *subsoiling and turning over the surface soil at the same time*. This is the only plow yet invented that easily and effectually performs this double operation, with one hand and one pair of mules, and, after having tested it thoroughly for several month, in all kinds of soil, we consider it indispensable and invaluable. It will be seen that the extra beam is removed and the clevies attached to the main beam, as usual. By referring to the cut, it will also be seen that there is at B, a space of about five inches between the point and the mould-board: The subsoil, after being stirred and elevated a few inches, passes through this opening, but is not brought to the surface—while the mould-board very effectually turns over the surface or top soil upon the loosened subsoil below—thus saving the labor of two mules and a plowman; for, with the ordinary subsoil plow, it is necessary to use two teams—one to go ahead, and the other to follow in the same furrow. This Plow, in the above form, (2d cut) with a good team and plowman, will loosen 3 or 4 inches of the

subsoil and turn over 5 to 8 inches of the surface (in all from 8 to 12 inches, according to the soil) with no hardship to either the mules or driver. It may be used for the preparation of orchards and vineyards, breaking up land deep for corn, cotton, wheat, tobacco, &c., &c.



This is the same as above, only that the mould-board is slipped down to the point and fastened there, so as to form a very perfect and complete *turning-plow*, where it is desirable to *reverse* all the furrow, to bury up grass, weeds, &c. The mould-board moves up and down or is taken entirely off, at pleasure, being held in its place by two strong bolts, and is changed in a few moments. The *point* of the Plow is of such a simple form that any ordinary smith can make it of wrought iron or steel, and the whole implement is finished in a workmanlike and durable manner. Further information may be obtained by addressing D. REDMOND, Augusta, Ga.

D. R.

ARISTOCRATIC STABLES.—A reporter of the New York *Herald* has been devoting himself lately to the stables of "Upper-ten-dom" in the Fifth Avenue, and about that neighborhood. He says:

"Some of the private stables and coach houses in New York are curiosities worthy of notice. Not half the poor people in the city are as well fed and cared for as the horses of our rich nabobs. On the Fifth Avenue and adjacent streets, are stables built of brick and free-stone, with much architectural display, lighted with gas, and supplied with Croton water, with large and roomy stalls, and in some cases, the lofts over head are occupied as sleeping rooms for the family servants. Our reporter recently visited and inspected several of these stables. In one, owned by a wealthy banker, late Foreign Minister, he found about half a dozen splendid coach and saddle horses, a beautiful Shetland pony, and a cow, besides the groom and coachman, half a dozen dogs, and some Guinea pigs. Everything about the place was kept as neat as a pin. The horses were littered with fine hay, occupied large, airy stalls, and seemed highly to appreciate their home comforts. The whole interior of the stable was handsomely painted. In the coach house were three or four rich, heavy coaches of European manufacture and an American phaeton. One fine carriage and four horses had already been sent to Newport, where the proprietor proposes to spend the warm weather. Another establishment, still more extensive, located in the rear of Lafayette Place, contained not only stables and a coach house handsomely fitted up, but a large and well appointed ring for horse-back exercises."

◆ Natural dignity of mind or manners can never be concealed—it ever commands respect. Assumed dignity, or importance, our ridicule and contempt.

SWEET POTATOES--HOW TO RAISE AND PRESERVE THEM.

We are indebted to the *Edgefield Advertiser* of the 31st of August, for the following excellent mode of "making" and "saving" that invaluable crop, the Sweet Potato:

"Our friend and neighbor, J. A. A., favors us this week with samples of his Sweet Potatoes, of the old crop [1858] and the new [1859] crop. The latter are finer than any we have yet seen. It is curious to know, too, how they were raised—planted in raw piney-woods new ground that never had a plow in it; the beds made up with the hoe; the 'draws' set in them, and nothing more done to the patch except once cutting the bushes; an experiment worthy of every farmer's attention.

"The old potatoes are as sound as silver dollars. The plan of saving them is one which has enabled our friend to have potatoes on his table from one year's end to another. We give it for the general benefit:

J. A. A.'s Plan of Saving Sweet Potatoes.—"Always dig before frost and when the ground is very dry; have your beds ready by raising them about ten inches above the ground; then put on dry straw about one foot deep; then put on the potatoes, about twenty-five bushels in a bank; next put straw one foot deep on them, then dirt at least one foot thick well-packed. Shelter them with a good shelter to keep them dry. Leave no air hole, but rather try to exclude the air entirely. Potatoes thus put up are not affected by the changes of the weather, which generally rot the potatoe. If dug when the ground is wet, they are almost certain to rot."

◆ A man who is apprehensive of receiving insults, is conscious he deserves them. True dignity never can be approached without respect, it is a coat of mail, which will always keep at a distance the contemptible intruder.

AN OLD MAN'S PSALM.

BY J. G. WHITTIER.

I mourn no more my vanished years—
Beneath a tender rain,
An April rain of smiles and tears,
My heart is young again.

The west winds blow, and singing low,
I hear the glad streams run;
The windows of my soul I throw
Wide open to the sun.

No longer forward nor behind
I look in hope and fear:
But, grateful, take the good I find,
The best of now and here.

I plow no more a desert land,
To harvest weed and tare;
The manna dropping, from God's hand,
Rebukes my painful care.

I break my pilgrim staff—I lay
Aside the toiling oar;
The angel sought so far away,
I welcome at my door.

The airs of spring may never play
Among the ripening corn,
Nor freshness of the flowers of May
Blow through the autumn morn:

Yet shall the blue-eyed gentian look
Through fringed lids to heaven,
And the pale aster in the brook
Shall see its image given;

The woods shall wear their robes of praise,
The south winds softly sigh,
And sweet, calm days in golden haze
Melt down the amber sky.

Not less shall manly deed and word
Rebuke an age of wrong;
The graven flowers that wreath the sword
Make not the blade less strong.

But smiting hands shall learn to heal,
To build as to destroy;
Nor less my heart for others feel,
That I the more enjoy.

All as God wills, who wisely heeds
To give or to withhold,
And knoweth more of all my needs
Than all my prayers have told!

Enough that blessings undeserved
Have marked my erring track—
That whereso'er my feet have swerved,
His chastening turned me back—

That more and more a Providence
Of love is understood,
Making the springs of time and sense
Sweet with eternal good—

That death seems but a covered way
Which opens into light,
Wherein no blinded child can stray
Beyond the Father's sight—

That care and trial seem at last,
Through Memory's sunset air,

Like mountain-ranges overpast,
In purple distance fair—

That all the jarring notes of life
Seem blending in a psalm,
And all the angels of its strife
Slow rounding into calm.

And so the shadows fall apart,
And so the west winds play;
And all the windows of my heart
I open to the day.

THE BOSTON CULTIVATOR AND THE CHINESE
Sugar Cane.

It is with some concern that we have read the following article on the Chinese Sugar Cane. The editors of the Boston *Cultivator* are gentlemen whose opinions are entitled to much weight. We had hoped that the Chinese Sugar Cane would be established as a valuable forage plant for cattle. We had supposed that the evils charged to its account were the same which would occur from the excess of any other succulent green food. In the article we extract from the *Cultivator*, it will be perceived that the editors of that paper concur with the French Marquis, in affirming that the Chinese Sugar Cane produces not only a diminution of milk, but absolute sterility in cows. We trust that no unfortunate discovery will be made in regard to this plant as a food for hogs. Coming in after the stubble fields are exhausted and before corn is ready, we have considered it as filling an important place in hog raising, and would be very sorry to be compelled to abandon it:

SORGHO AS A FORAGE PLANT.—Much has been said and written upon the Chinese Sugar Cane, within the past two or three years, some maintaining that it contains more valuable qualities than any other field plant known. The two chief ends to be gained by its introduction and cultivation, as claimed by its enthusiastic advocates, are or were, that it would enable every farmer to make his own sugar, and to produce a cheaper forage for his live stock, than could be done by the cultivation of any other plant. With regard to the first claim we never had much confidence, yet quite as much as with regard to the second. Concerning the latter, that is to say, its use as a forage plant, we copy the following statement, translated from the French *Journal of Practical Agriculture*, for the *Mark Lane Express*. Similar conclusions relative to its use for feeding cows, have been reached here, to those contained in the following experiments, which were made in France:

"When in your columns, Mr. Editor, you opened an enquiry respecting the qualities of the sugar sorgho of China as a forage plant, you ought to have received the observations of one of the oldest contributors of the *Journal of Agriculture*, when to that title was united that of being one of the first introducers of the sorgho."

"On principle, and in quality of member of the Zoological Society of Acclimation, I have shared in the distribution of seeds sent to the Society by M. de Montignay. These seeds have ripened with me from the first years of their introduction. I cite the fact, not to profit by it, for our latitude ($40^{\circ} 36' N.$) will not permit us to expect a fructification, constant, regular and normal, but to let you see that my experiments have from the first continued uninterrupted. A cultivator in Sologne, seeking improvements, I have directed my attention to the sorgho, and its power of vegetation, to call it to my aid as a forage

plant; at the same time divesting myself of all preconceived ideas, whether enthusiastic or disparaging. I shall not, therefore, touch the question but to throw light upon honest researches. I will not seek in the new planta universal panacea for cattle, or a dangerous poison; but to excite a renewed examination. I will confess that the abundance of forage has won me as it has done others; but with certain facts before me, duly stated, I stopped and reflected. Perhaps in the absence of regular accounts we might have deceived ourselves; but with the figures before us, we can come to no other conclusion; at the same time requesting the practitioners to renew their experiments carefully.

"The sorgho is not a violent poison for cattle; but if the effects observed, not only in my cultivation, but also in that of many of my neighbors, be frequently renewed, we ought necessarily to attribute to this plant a deleterious influence. On a farm which I occupy myself, 25 horned cattle have been fed exclusively on sorgho during a month; and from the precise day on which it was introduced in feeding the cattle, the journal of the farm shows a diminution of the profits of the dairy by one-half, and the same decrease was exhibited every month of feeding with sorgho.

"On the other hand, there was, in respect to one of the cows, a case of wind that caused its death. Any other kind of food might have produced a similar accident; but what many of my neighbors have asserted is, the sterility of the cow fed on sorgho. If these are facts, sterility on the one hand, and a diminution of half in the production of milk on the other, repeated regularly in consequence of feeding the cows on sorgho, we must conclude from them that this plant is injurious; since it hinders or diminishes all kinds of production by interfering with the secretions, which must necessarily provoke a perturbation in the animal organism; all morbid causes having their origin in suppressions of this nature.

"I know that no improvement of the soil is possible without an abundance of green food; and their production regularly successive by a course of cropping is not always an easy matter. I should, therefore, regret being obliged to abandon the sorgho. The desire of preserving for a plant so luxuriant, a place in the production of green food, and also, on the other hand, the fear of introducing into the midst of our cultivated plants a dangerous auxiliary, ought to operate as a doubly powerful motive for prudently and honestly renewing the experiments.

MARQUIS DE VIBRAVE."

AGRICULTURAL SCHOOL IN BELGIUM--PRO^{GRAMME} of the Course of Study, &c.

COURSE FOR THE FIRST YEAR.

1st. Botany in all its branches. 2d. Elements of Chemistry and of Natural Philosophy, Divisibility, Filtration, Gravity (Affinity), Heat, the study of the Thermometer (of the Pyrometer), Effervescence, Evaporation, Sublimation.

CHEMISTRY PROPER.

Table of the 61 simples, Chemical Vocabulary, Crystallization, Laws of Combination, the use of Chemical Signs and Formula, Chemical Reaction, Study of Bodies (properly called Metallurgy), Oxygen—its history, Natural and Chemical Properties, Composition, Distinct Character, Natural state, Preparation. Same course for all the others.

AGRICULTURE.

Agriculture (properly so called), Climate, Soil, Arable Lands, Clay, Silicia, Lime, Mould, Magnesia, Oxide of Potassium, Soda, Oxide of Iron, the Earths 1st class Clay Soils, composition and properties of the earths which belong to this class. 2d. Soapy Soil, Composition, Dis-

tinct Character, Properties and Nature, Subdivisions of clay soils and their properties. 3d class Limy Earths. 4th. Manner of learning the value of arable land, 1st by Chemical Analysis, and 2nd, by Natural Properties.

Chapter II.—How to know lands which need draining, the Causes which make the earth too moist, General Principles of Drainage in case of springs, Method of Draining in case of an impenetrable soil or subsoil, Drainage (properly so called), the method of ascertaining lands which require drainage.

Chapter III.—General principles which should guide in the construction of a complete system of drainage—draining land submerged.

IRRIGATION.

Advantage of Irrigation, Properties of different waters, Purifying them, Irrigation of Cereals, Construction of Reservoirs, to construct Reservoirs in proportion to the extent of field to be irrigated, the Use of water in reservoirs, Canal which brings the water, Ways of Irrigating, 1st by ditches running through the land, 2nd by Filtration, and 3rd, by Submersion.

AGRICULTURAL ANATOMY.

Definition of Anatomy, Study of Tissues and their Modifications, different Modifications of the Cellular Tissues—1st, Tissue of the skin—2nd, Mucous—3d, Serous—4th, Vascular—5th, Glandular—6th, Fibrous—7th, Cuticle Fibre—8th, Cartilaginous—9th, Osseous. Nervous Tissue—Descriptive Anatomy, a Treatise on the bones, Myotomy, the organs of digestion, of the mouth, the lips, the shape of the teeth, the jaws, the palate, the tongue, the salivary glands, the carotid artery, maxillary, sublingual, salivary, the pharynx, the æsophagus. The digestive organs—the abdomen, the stomach, the intestines, the liver, the pancreas, the milt, epiglottis. Organs of Respiration—organs of sensibility, organs of the senses, organs of the passions, organs of the hearing, organs of touch, organs of secretion and excretion of the urine. Mathematics, Geometry, Surveying and Leveling, and Algebra, during the course of study for three years, with Lineal Drawing.

COURSE FOR THE SECOND YEAR.

Continuation of Chemistry and Natural Philosophy, with practical experience in the Laboratory.

AGRICULTURE—SECOND YEAR.

Study of Manures, Classification of Manures, Farm-yard Manure, Atmospheric Manure, Manure from horned animals, from swine, of horses, of sheep, human excrement, of poultry, guano, folding of sheep, litter of straw, of leaves, of branches, of fern, &c.; Preparation and Use of Manure, Situation of the manure pile.

IMPROVEMENTS.

Organic improvements, inorganic improvements.

NEW COURSE ADDED THE SECOND YEAR.

Chemical Organization, Technology, Course of Political Economy, of Mineralogy, Course of Agricultural Books, Study of horses, of cattle, of milch cows, etc.; Zoology.

AGRICULTURE.

Special Culture, Cultivation in the different parts of the world.

COURSE FOR THE THIRD YEAR.

Practical Study and Review of Courses, Practical Veterinary, the giving of Remedies, Practice in Fields, the Natural Garden and the Laboratory in Chemistry and Philosophy, Botanical Excursions and Analysis of Plants.

The above course has been pursued by a gentleman who is a graduate of a Belgian Agricultural School, and will be read with interest in the present state of feeling in regard to Agricultural instructions.—EDS.

WHEAT RAISING AT THE WEST AND SOUTH.

EDITORS SOUTHERN CULTIVATOR—It is imagined by all or nearly all, persons living East and Southeast, that it costs nothing to raise crops on the Western prairies; hence the difficulty of competing with Western farmers in raising cereals. From experience, let me give you facts and figures. Let us take fifty acres of wheat, and estimate the cost of putting it into market, from the preparation of the ground to the delivery of the grain at the depot. Labor all hired:

| | |
|---|---------|
| Plowing 50 acres land, at \$1 per acre..... | \$50 00 |
| Board of 2 hands and 4 horses 12 days..... | 24 00 |
| Harrowing and drilling seed..... | 50 00 |
| Board of 1 hand and 2 horses 10 days..... | 12 50 |
| 75 bushels seed wheat at 90 cts..... | 67 50 |
| Cutting 50 acres wheat at 75 cts..... | 37 50 |
| Board of 4 horses 5 days..... | 5 00 |
| Board of hands—1 driver, 1 raker, 5 binders, 2 shockers—5 days 50 cts..... | 22 50 |
| Threshing 600 bushels (placing the average yield at 12 bushels, fully the average) wheat at 6 cts.. | 36 00 |
| Board of 7 hands and 8 horses 2 days..... | 11 00 |
| Hire of 4 of these hands at \$1..... | 8 00 |
| Hire of 4 of these hands at 50 cts..... | 4 00 |
| Hauling three miles to railroad..... | 15 00 |

Total cost of raising 600 bushels wheat...\$343 00

No. 1 wheat now commands at the station 80 cents per bushel, being Chicago prices, less freight and commission. This would give for the 600 bushels.....\$480 00

Deduct cost of raising.....\$343 00

Leaving the farmer the extraordinary amount of. \$137 00

One hundred and thirty-seven dollars income on 50 acres of wheat. This is a fair estimate of all the expenses incident to the production of the crop, taking the last three years as an average and charging nothing for rent of land.

From these data it is easy to calculate the cost of raising an acre of wheat, where the farmer of ordinary means, say one owning and working 200 acres of land, uses, beside his own farm hands, (usually two) horses and machines, such extra hiring as may be necessary.

The average the past two years has been under 12 bushels, though many fields have yielded 14, 16 and 18 bushels—the highest I have yet heard of this year (1859) being 16, and the lowest 5 bushels to the acre.

Now, your readers can judge whether wheat cannot be raised more profitably in Georgia than in Illinois, under existing circumstances.

H. HINKLEY.

Prairie Cottage, Assumption,
Christian Co., Illinois, August 8, 1859. }

A DISCLAIMER.—Messrs. H. E. HOOKER & Co., of the Commercial Nurseries, Rochester, N. Y., write us, under date of Aug. 22:

We have been surprised in receiving some copies of Augusta papers in which our agent, Mr. Workman, has been assailed as an abolitionist and prejudice excited against him in that way. It is needless to assure you that we have not the remotest idea of meddling in any way, directly or indirectly, with the institutions of the South, and we feel sure that Mr. Workman is of the same mind. May we hope that you will set us right in this particular wherever you have opportunity? We only wish to prosecute our business legitimately and honorably with advantage to all parties.

Yours, respectfully, H. E. HOOKER & Co.

INFLUENCE OF THE MOON.

As there are many persons (says an exchange paper) who most religiously believe in lunar influences upon sub-lunar objects, we collect the following useful (?) information for their especial benefit:

1. Vines, if pruned when the moon is increasing in light, will shoot out, spread, and grow fast, particularly if done in the second quarter—because, as the light of the moon increases, so does the sap in the tree.

2. Vines, if pruned when the moon is decreasing in light, will not grow nor spread fast—particularly if it be done during the last quarter, because the sap decreases with the light.

3. Timber cut down when the moon is increasing will soon become rotten, particularly if she be in her second quarter.

4. Timber cut down when the moon is decreasing, will last for years, and the more durable it will be if cut down during the last quarter.

5. Peas sown during the moon's increase will bloom to the last, and will be full and rich in flavor; still more certain if sown during the second quarter.

6. Peas sown when the moon is decreasing in light will be just in the opposite condition.

7. The age to which a pomegranate will live, depends on the moon's age at the time of planting; it will live just as many years as the moon was days old.

8. Plants and shrubs shoot up and take little root, if planted when the moon is decreasing in light and by the zodiacal signs Gemini, Libra, or Aquarius.

9. If planted in the signs Taurus, Virgo, or Capricornus they take deep root and do not grow tall.

10. Pork killed upon the decrease of the moon, and especially in the last quarter, and made into bacon, will shrink when boiled, and will be tough, stringy and unwholesome.

11. Pork killed when the moon is on the increase, and especially in the second quarter, and made into bacon when boiled will swell, be plump, tender and wholesome.

12. Soap made on the increase of the moon, and especially in the second quarter, will thicken and be serviceable. On the contrary, soap made on the decrease of the moon will not thicken, and will be worthless.

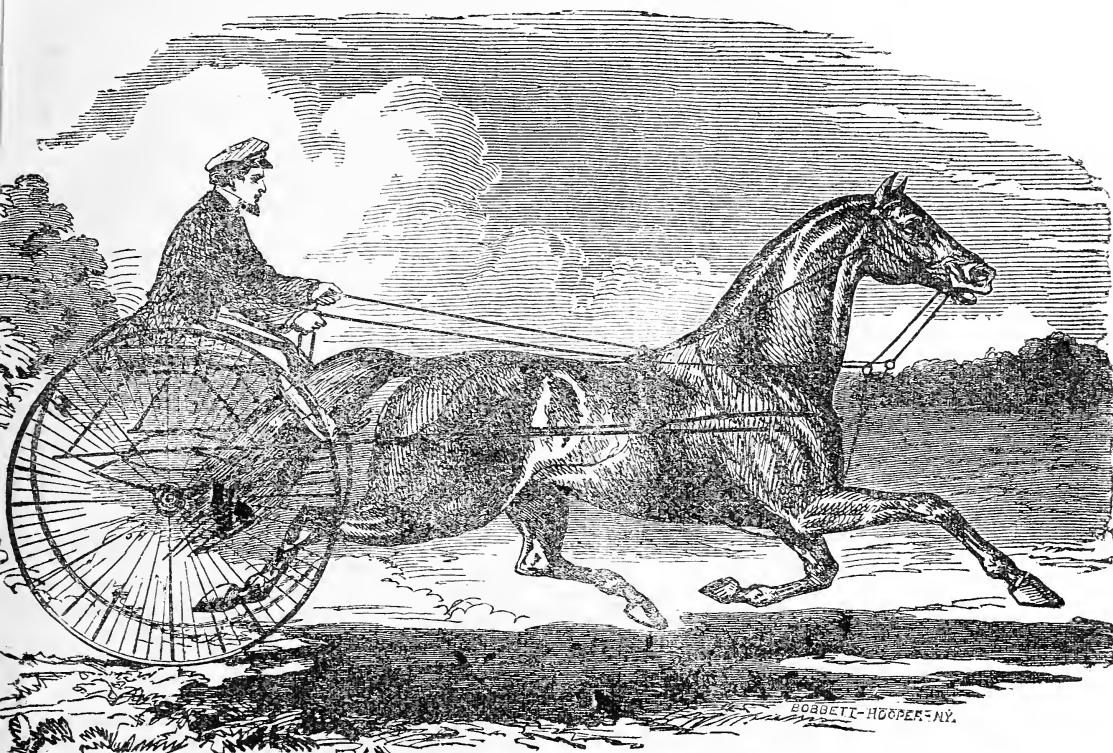
13. By all means, never go fishing on or near the full of the moon, as they won't bite then.

14. But above all, never go a courting except in the two first quarter of the moon, as the human family are much more liable to moon strokes then than in any other of the moon's phases.

Observe the above and you will always have vigorous vines, lasting fences, prolific peas, long lived pomegranates, wholesome bacon, clean clothes, plenty of fish, and a clear conscience, to say nothing of a wife and many children.

FRUIT IN LOUISIANA AND TEXAS.—The idea is extensively prevalent, that Apples of a fine quality cannot be grown in this vicinity. It is, however, erroneous. We have seen some grown on the plantation of Wm. Hester, Esq., on the Jackson Railroad, in Hinds county, Mississippi, which for general appearance, body and flavor, cannot be surpassed by the best Ohio apples. They settle the question. Ere long we hope to see our markets bountifully supplied with apples, peaches, grapes, etc., by the Jackson Railroad. We trust the people of the Pineywoods Parishes and the adjoining counties in Mississippi will look to this matter. They will find it to their interests to do so.—*New Orleans Bulletin*.

TEXAS APPLES.—The Civilian mentions fine apples grown upon Galveston Island, one of which measured 11 1-2 inches in circumference.



MORGAN STALLION, "CLIVE."

THE above cut, engraved expressly for the *Southern Cultivator*, represents the Morgan Stallion, "*Clive*," as he appeared at the Fair of the South Carolina Agricultural Society, at Columbia, in 1858, at which place he was awarded the first premium. *Clive* was brought to Georgia, from Vermont, by his present owner, GEO. H. WARING, Esq., of Clarkesville, Habersham county, Ga. This fine young stallion was sired by the Ashuelot Morgan, 2d, by Green Mountain by Giffard, by Woodbury, by Justin Morgan. Dam by Flint Morgan, by Sherman Morgan, by Justin Morgan. Color dark chestnut, mane and tail of same color—no marks. He is now four years old, 15 1-2 hands high, and weighs 1200 pounds. *Clive* has already taken three premiums—two at the North and one in South Carolina. By reference to our advertising columns the places can be learned at which his services can be secured.

THE RICE HARVEST.—Several planters on the Savannah River commenced, the latter part of last week, to cut and harvest their rice crop. Southward of us, on the Ogeechee and Altamaha, the crop is usually cut a little earlier, and they, no doubt, commenced the first of the week. From a rice factor in this city we learn that the crops on the Savannah and Ogeechee rivers are excellent. From the Altamaha, the reports received indicate that the planters on that river will reap a good crop. It is, though, not wholly free from danger, such as freshets from rains and breaking of dams, continued rainy weather, &c., which may materially affect both the quantity and quality of the crop.—*Savannah Republican*, Aug. 21st.

Besides *Clive*, Mr. WARING has brought three other Morgan stallions into the State, and of which he has kindly furnished us the pedigree.

"*Lath*," bred in Tompkins county, New York. Sire, Paul Clifford, by Black Hawk, by Sherman. Dam by the celebrated trotting horse, Andrew Jackson. Foaled August, 1856. Color chestnut, silver mane and tail, two white hind feet, 15 hands high, well boned and promises great speed.

"*Enterprise*," sired by Romeo, by Green Mountain 2d. Dam by Flint Morgan, by Sherman Morgan, &c.

"*Bay Comet*," sired by Prince Albert, by Green Mountain 2d, by Giffard, &c. Dam by Royal Morgan or Crane Horse, by Sherman, by Justin Morgan.

It will be seen that the blood of these four fine animals is unexceptionable. We hope that the very costly efforts of Mr. WARING to improve our breed of horses will be properly appreciated. It is a service to the State.

LIEUT. MAURY—The Nashville (Tenn.) *Daily News*, of a recent date, says:

"It has already been generally announced that the Agricultural Bureau of Tennessee had engaged Lieut. M. F. Maury, of the United States Navy, to deliver the Annual Agricultural address before that body, during the approaching State Fair, at this place, on the 11th day of October next."

—————
Ingratitude is so deadly a poison that it destroys the very bosom in which it is harbored.

THE FARMER'S QUESTIONS TO CANDIDATES
for the Legislature.

EDITORS SOUTHERN CULTIVATOR—A farmer meets a candidate who solicits his vote. The farmer replies: “I am a plain man. I don’t understand United States politics, but there are some things about home here that I do understand, and I want to know your views about them before I vote for you. We know that in Georgia there is gold, silver, copper, lead, coal and marl, perhaps plaster of Paris and salt. But we don’t know how to look for them or follow the veins. There are probably men now owners of treasures who are ignorant of it. Will you vote for the appointment of men of science to make an examination of the State?

“The Western & Atlantic Railroad was built for the good of all Georgia. That which Georgia most needs is the improvement of her soil, which is pretty near worn out. Will you vote to make the State Road bring up Guano, Super-Phosphate, &c., and carry down Lime at the lowest possible rates, and to make regular arrangements for the cheap transportation of all manures?

“Will you vote for the establishment of a farm for agricultural experiments? so that in the large sums of money which are spent for stock, seeds and manures, we may be able, each for himself, to spend this money to the best advantage.

“I expect my son to be a farmer. I want him to be an educated farmer. If I send him to a College, he will learn chiefly Latin and Greek, and will also learn to turn up his nose at the plow and the manure pile. Will you vote for the establishment of a school, where my son and the sons of my brother farmers can be educated so as to fit them for the business they are going to follow?

“There are a great many poor young men in the State who are very anxious for an education and can’t get it. As the good book says, “they thirst for knowledge.” Will you help to quench that thirst, by voting for one or more schools in which such young men, by their work, can support themselves and get an education without asking charity from any body?

“The lawyers and doctors and preachers, and storekeepers, and Railroads get their living out of the farmers, and it’s about time that the farmers should get some help, to put them in a way of supporting this large family with a little more comfort and profit to themselves. We are going to get into a state of great excitement about politics. It will all end in somebody being made Governor, somebody going to Congress and a whole lot to the Legislature. We are told that the country is going to be ruined. But it’s been a long time getting ruined. Somehow, in the ruination process, somebody always gets elected Governor or Congressman. The worst ruin that I see is our land getting worn out and our people moving to the West. Will you vote to help the farmers in improving their lands and getting their sons educated for their business? If you will, I will vote for you; if you won’t, I must hunt up somebody else. We farmers have been pushed to the wall long enough. It is full time that we had our rights. We pay nearly all the taxes. We send men to Milledgeville and support them while they are there, and after they get there what do they talk about? How they shall make Georgia a great State? How they shall stir up the people to be more industrious? How they shall bring in improvements, that in other countries have made the man who owns a few acres of land a rich man? Not a bit of it. The talk is, who shall be President—who shall go Congress—how shall we help the party? Now, I don’t believe it’s worth the money that our Legislature costs us every year just to fix up to elect any one man or any set of men to office. I, for one, am going to keep my eye on this next Legislature. If there is a man there who stands up like a man for old Georgia,

for her land and schools, and for the general welfare of her people, and sticks to that text, I am going to mark him and, when I get a chance, to honor him. And if my brother farmers will do the same and we all club together, in a little while we will get the trading politicians out of the way and the right sort of men in their places. And then the good time wont be coming, but it will be come. So, my friend, you know now what sort of a man I am going to vote for.

FARMER.

September, 1859.

THE WEATHER AND CROPS IN GENERAL,
Including the Grape, Apple, Pear, &c.

EDITORS SOUTHERN CULTIVATOR—In this vicinity the Corn crop is good—the long spell of wet weather has retarded the gathering of, and somewhat injured the fodder. The Cotton crop on red land had not received any injury up to near the close of August—how the last heavy rains will affect it, is not certain. The flat pine lands will be more liable to injury by rust. Some complaints of this nature have reached us from Southwestern Georgia. The breadth of land cultivated in cotton this year being much greater than at any previous time, it will require some considerable damage from rot, rust, or any other disease, to reduce the crop below the figures of four million bales. The fruit crop is nearly a failure hereabouts. Most of the Peaches were unsound. The Apples are generally punctured and knotty. The Pears are very few—only one tree in my orchard has borne anything like a tolerable crop—the Duc de Bourdeaux, on Quince, had some seventy or eighty splendid Pears. Mr. Lewis, President of Georgia Agricultural Society, was present at the gathering, and pronounced the sight better than any article or speech on Pomology. The Grapes bore a fine appearance to the middle of July; subsequently the wet weather and the ravages of the birds destroyed all the finer sorts—Devereux, Warren, Black Florida, &c.—some few of the Isabellas and Catawbas escaped, merely for table use. The Scuppernong is safe, with a full crop. D. P.

Mount Zion, Ga., Sept., 1859.

POULTRY CHOLERA.

EDITORS SOUTHERN CULTIVATOR—Can you suggest a remedy in the *Cultivator* for a disease among Poultry, which has recently ravaged the farm yards of most of the planters on the Little Ogeechee. The birds, apparently in full health and life, are suddenly seized with paralysis in the legs, sink down, droop over (droop, literally, for the turn upon the side is slow and deliberate, followed by no convulsive effort whatever) and die without any visible suffering. The healthiest are, in every instance, attacked, and I have known only one case which did not end fatally. I have lost nearly all my poultry—sometimes twenty odd would die in a day—turkeys, ducks, guinea fowls and the ordinary barn yard fowl—all of them in the manner above described. They were well sheltered and fed, carefully tended, and ranged in a large enclosure, thoroughly shaded with oaks. Some of my neighbors have suffered severely. I have tried various remedies suggested, but none which, in any way, reached the evil.

Yours truly, A.

[We have, like our correspondent, yet to find an *efficacious remedy* for this disease among fowls. Assafetida and oak bark in the water trough, and a clean yard to run on are among the best *preventives*; but we do not know of a good and *sure* remedy, when the fowl is once attacked badly. We shall be glad to hear from any correspondent who can furnish a cure.—Eds.]

EUROPE AND AMERICA-S-SEA ISLANDS, &c.

EDITORS SOUTHERN CULTIVATOR—In casting our eyes over Europe, we behold events of vast import intimately connected with our common Agriculture and manufactures, as well as the progress of civil and religious liberty, transpiring there. It is not the roar of cannon, the clatter of musketry, the clash of swords and the downfall of tyranny and oppression that is to effect these great events; but, it is the renovating influence of free Institutions—it is the elective representative government that is to grow out of this chaos and slaughter to regenerate Italy and Sardinia. If Napoleon, Emanuel and Garibaldi, the once poor, obscure Captain of one of our northern coasting vessels, and tallow-chandler of Long Island, will, or can carry out their laudable, noble designs in elevating poor, down-trodden romanist, oppressed Italy and Sardinia by securing to them a government of their own choice, and enable them to throw off the inquisitorial, withering hierarchy of Rome; they will become more renowned than being considered the mere type of Napoleon I.

* * * * *

Now let us turn from these scenes of horror and contemplate our beautiful, our favored and blessed country! Abounding in all the luxuries and comforts of an Agricultural people, perfecting what may be amiss in government by a free elective franchise and religious toleration; feeding nations with our vast surplus cereals; clothing the whole world with our cotton; and at peace with all nations, save our unfortunate natives, who, too, are accomplishing their doom that “their hands shall be against every man’s, and every man’s hands shall be against them;” but alas! they know it not until the bright beams of gospel light burst into their souls, with the power of conviction and conversion, to the religion of the meek and lowly Jesus!

Here, along these pleasant isles of the ocean, we have laid by our flourishing crops, planted our valued extra crop of slips, draws and peas, as we do not depend on Irish potatoes at all, and if drouth reduces our corn, slips and peas supply the deficiency, so soon as that little cloud ariseth out of the sea like a man’s hand, which Elijah saw from the top of Carmel, which confounded the false prophets and caused the wicked Ahab and his people to fall down and cry aloud, the Lord he is the God, and they took the false prophets of Baal down to the brook Kishon, and there Elijah slew them and he said unto Ahab: get thee up, eat and drink, for there is a sound of abundance of rain, and their flocks and their herds were saved from famine, as Elijah’s sacrifice of a bullock was consumed by fire from Heaven, although three times saturated with water, while a similar sacrifice offered by Baal prophets, remained untouched by fire!” Such are some of the beautiful and striking manifestations of God’s power and inclination to “do his will on earth as it is done in Heaven,” and if our land yields her increase in due season, we have the evidence before our eyes of his interposition to save our flock, our herds and our crops from drought, famine, pestilence and death.

I am, gentlemen, yours respectfully,
A PLANTER.

Glynn County, July, 1859.

N. B.—We shall be soon clearing down new land, mowing rushes and marsh, digging mud, collecting succulent weeds for our manure pens, to take old time by the forelock to prepare for another crop, and finally render our light sandy lands a rich loam more productive of our fine Sea Island cotton than it was originally: and some of our cotton on our rich compost is now over six feet high, loaded with fruit, and will be soon opening, and our corn hard enough to turn down, and thirteen full ears have been counted on a hill of Peabody prolific corn; as you know one of the peculiar characteristics of this extra-

dinary corn is to succor, which produces as much as the original stock, when heavily manured with our rich compost.

IMPROVED FARMING—DICKSON’S PLAN, &c.

EDITORS SOUTHERN CULTIVATOR—It occurs to me, the following facts may be useful to farmers generally; at least they have taught me a lesson which I have deemed exceedingly profitable: In the year 1839, which every one, old enough, remembers was very dry, Mr. Thos. J. Dickson was then a young farmer, following the plans he had been raised to follow, using great industry. That year he had a poor neighbor living on land adjoining who had no horse to plow, but who had a patch to put in corn; Mr. Dickson was induced to prepare this patch of land for corn, he breaking up the land deep and thoroughly with the Dagon Plow, and planted it for him; afterwards this poor man, having no horse to plow his land, cultivated with the hoe only, by keeping down the weeds and grass. Mr. Dickson went on to cultivate his crop, planted in the same manner as he and I had been raised to do, by deep and thoroughly plowing. The year was a trying one—no rain from the 22d of March to the 22d June. Mr. Dickson says his corn fired badly and a large portion of the tassels dried up. His poor neighbor’s patch did not have a dried blade upon it or a tassel dried. It threbled Mr. Dickson’s corn, on adjoining and better land. This was a lesson taught Mr. Dickson which is now telling throughout this county. Mr. Dickson at once perceived, to enable corn roots to go deep, the land must be well pulverized and afterwards when the plow is used only to answer the purpose of the hoe; hence, he adopted the sweep, from the planting of both corn and cotton to the end of it.

If any benefit is to arise from this communication, it is probably this: most of us seeing the marvelous success of the two Mr. Dickson’s, adopt the sweeps—they use the sweeps flat and wide and only to answer the purpose of the hoe, cutting neither corn or cotton roots—too many of us use the sweeps, running on the points and doing the work of the shovel, killing our horse and mules and cutting the roots as a shovel would do.

It is to be regretted that both Thos. J. Dickson and David Dickson do not write more than they do. Neither is averse to giving information—I never talk to or visit either without benefit. If I have success as a farmer (having followed other pursuits) it is to them I owe it.

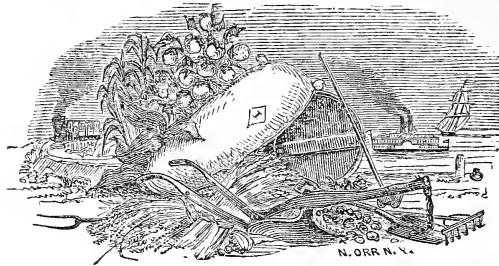
I have this year cultivated between 30 and 31 acres corn and cotton to the hand, and 52 1-7 acres to the plow. I have not, during the year, been three weeks getting over my entire crop. My land is incapable of a better crop. Besides corn and cotton, I plant largely of oats, potatoes and turnips.

JAS. THOMAS.

Hancock Co., Ga., 1859.

A USEFUL TABLE.—Counting plants one foot apart each way, we shall have forty-three thousand five hundred and sixty upon an acre, because an acre contains that number of superficial feet. Take the figure in the first column of the following table as the distance apart, and an acre will contain the number of plants in the second column:

| | | | |
|-----------------|--------|--------------|-----|
| 1 1-2 feet..... | 19,360 | 12 feet..... | 302 |
| 2 feet..... | 10,890 | 15 feet..... | 198 |
| 2 1-2 feet..... | 6,969 | 18 feet..... | 134 |
| 3 feet..... | 4,880 | 20 feet..... | 168 |
| 3 1-2 feet..... | 3,530 | 23 feet..... | 90 |
| 4 feet..... | 2,722 | 25 feet..... | 69 |
| 5 feet..... | 1,742 | 30 feet..... | 48 |
| 6 feet..... | 1,200 | 35 feet..... | 35 |
| 8 feet..... | 680 | 40 feet..... | 27 |
| 10 feet..... | 435 | 45 feet..... | 21 |



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., No. 10::::OCTOBER, 1859.

ANSWERS TO CORRESPONDENTS.

"NEW KIND OF SILK."—A. M.—The substance you sent us is the lint of the common "silk weed"—called at the North, "milk weed," from the milky juice in which the stalk abounds. The botanical name of the variety sent us is *Asclepias Cornuti*. The lint is sometimes used to form beds, and answer a tolerable purpose; and the young, tender shoots and partly developed buds make very excellent "greens" or salad. Had the silky lint or any other portion of the plant possessed other practical value, some "cute" Yankee would have discovered and availed himself of it long ago. The silk-worm is safe for some time yet—at least so far as this plant is concerned.

PLOWS, COTTON PICKER, &c.—J. P.—The best plow for "new land, full of roots, stumps, &c.," is a good strong coulter or rooter. We do not know of a cotton picker "that has been fully tested," except the negro, who is in advance of all "machines" thus far. For Brinley's Plow, address PHILIPS & KELLS, Jackson, Miss.

GRAPE LEAF, &c.—J. H. A.—The leaf you sent was too withered for recognition. Judging from your description, your land is well adapted to the culture of the Grape and other fruit. We forward you a pamphlet per mail.

POUDRETT, NIGHT SOIL, &c.—Col. JAS. T.—We will give a complete article on this subject in our next.

BROAD TAIL SHEEP AND DEVONS.—W. P. S.—Col. WARTS, of Cartersville, Ga., can answer your inquiries respecting the sheep, and the inquiry in regard to Devons may be addressed to R. PETERS, of Atlanta, or Geo. H. WARING, of Clarksville, Ga.

"**GEORGIA SUBSCRIBER,**" of Mobley's Pond, forgets to send his name.

PEACHES, &c.—F.—See the excellent descriptive list of Mr. PETERS, in another column.

HORSE HOE.—H. B.—This implement can be obtained here from CARMICHAEL & BEAN, or J. & T. J. BONES. The Catalogue will be sent.

"DARK, LARGE GRAPE."—A. P.—The Grape you saw must have been the *Concord*—one of our finest varieties—a week or 10 days earlier than *Isabella*.

DR. M. W. PHILIPS.—We are glad to see that this veteran agricultural writer, and excellent planter, has taken charge of the Editorial department of the "*Southern Rural Gentleman*," of Grenada, Miss. The "Rural" is a capital paper, and deserves a liberal support.

NURSERY CATALOGUES.—We have received "Supplemental Catalogue of Fruit Trees, Grape Vines, Strawberries, Roses, Shrubs, &c., cultivated at Fruiland Nurseries, Augusta, Ga., by P. J. BERCKMANS & Co., for 1859-60." This is a very extensive Catalogue, and embraces everything desirable in the way of Fruit and Ornamental Trees, Shrubs, &c.

"Annual Catalogue of Trees cultivated at Gloaming Nursery, 1859 and 1860. Clarksville, Habersham county, Ga. By JARVIS VAN BUREN.

Mr. VAN BUREN has given particular attention to the collection and dissemination of Southern Seedling Apples, &c., and has a very fine stock on hand the present season. We are indebted to him for samples of the following fruits:

Southern Summer and Autumn Apples.—Habersham, Julien, Horse, Buckingham, Disharoon, Chestatee. **Northern Winter Apples.**—Summer Bellflower, Cayuga Red Streak, Pound Royal, Baldwin. **Pear.**—Louise Bonne d' Jersey. **Grapes.**—Elsenberg and Isabella.

"Catalogue of Fruit and Ornamental Trees, cultivated and for sale by PETERS, HARDEN & Co., Downing Hill Nursery, Atlanta, Ga. An excellent stock of Trees, &c., described and set forth in the best style.

The above Catalogues will be sent to all *free*, upon application to the gentlemen who have issued them.

Catalogues have also been received from FLEMING & NELSON, Augusta, Ga.; ELLWANGER & BARRY, Rochester, N. Y.; THORP, SMITH & HANCHETT, Syracuse, N. Y.; THOS. MEEHAN, Germantown, Pa.; A. FROST & Co., Rochester, N. Y.; H. E. HOOKER & Co., Rochester, N. Y., and several other similar establishments. See our advertising sheet, attached to cover.

TO CORRESPONDENTS.—We are still obliged to defer many of the valued favors of our friends, and to ask the exercise of their patience. Ample as is our space, we could, with the material on hand, easily fill two or three such sheets every month. We will insert all accepted communications as soon as possible. Articles bearing the following signatures are still on file :

H. F. G****—J. C. P.—J. Pender—S. C.—B. F. R.—F. O. F.—Sibyl Grey—W. S. Hutton—Georgia Subscriber—J. A. S.—B. F. T.—J. H.—L. T. B.—C. G. W.—G. W. G.—P. R.—B. S. B.—J. R. R.—A. O.—T. B. F.—S. McD.—C. C. W.—G. D. Harmon—W. S., Jr.—Dr. M. W. Philips—John Adams—*—S. A. P.—Middle Georgia—W. H. H.—W. Tate—A Lover of Ham—A Sun Burnt Farmer—G.—One of the Party—A. J. Lane—H.—W. B. J., &c., &c.

REESE'S PHOSPHO-PERUVIAN GUANO.—We have received from Mr. REESE, a well written and sensible pamphlet, developing the principles upon which he has proceeded in the manipulation of his Fertilizer. Theoretically, these principles are sound; in fact, incontrovertible.—Practically, we are not familiar with the use of this manipulated Guano, and, therefore, cannot speak of our own knowledge. The advertisement of Mr. REESE, on the cover of this journal, (to which we invite the special attention of our readers) contains some very strong statements in regard to the value of this manure, from Cotton Planters of North Carolina. The cotton planter should read them carefully. Those wishing further information can obtain it by applying to Mr. REESE for a copy of his instructive pamphlet.

CONDENSED CORRESPONDENCE.

An experienced planter of Hancock county, Ga., says: "I have, this year, cultivated between 30 and 31 measured acres of corn and cotton to the hand and 52 1-7th acres to the plow. I have not, during the year, been three weeks at any one time getting over my entire crop. My land is incapable of a better crop; for, besides corn and cotton, I plant largely of oats, potatoes and turnips."

[Our correspondent is neither a land-skinner nor a negro or mule killer, but an enlightened, progressive agriculturist, who cultivates properly, keeps his hands and stock in the best order, and steadily improves his lands. His example is worthy of extensive imitation.—Eds.]

CROPS IN FLORIDA.—From Marion county, Fla., a correspondent writes:—"Corn crops very bad in Florida, and the caterpillar has commenced in places on the cotton; grass is also eaten up the grass species of caterpillar."

A NON-“PERFORMING” JACK!—*Editors Southern Cultivator*—I would esteem it a favor if you or some of your numerous readers of the *Cultivator*, will inform me of the most suitable treatment for a Jack. I procured one last winter at considerable trouble and expense; but, to my disappointment, he failed to perform. There may be something in management or keep; if so, please let me know through the *Cultivator*, and you will greatly oblige

A SUBSCRIBER.

Covington, Polk county, Ark., August 14, 1859.

WORM IN WHEAT.—*Editors Southern Cultivator*—The wheat crops of this section have been affected to an alarming extent, for the last two years, by a yellow worm which passes through the joints, causing the straw to fall before the grain is matured. As this is a subject of deep interest to the wheat growers of Cherokee, you or your correspondents would confer a great favor by shedding light upon this subject through the columns of the *Cultivator*.

Yours truly, D. JOHNSON.

Cathoun, Ga., August 8, 1859.

HEDGES IN THE SOUTH WEST.—Will you or some of your correspondents, who live in the South West, and who have satisfied themselves by experiment or otherwise, as to what will make the best hedge fence, be pleased to impart their information through the columns of the *Cultivator*?

What will best suit the climate? What is the quickest, most durable and most defensive?

Respectfully, W. H. DENNY.

Crockett, Texas, August 25, 1859.

BLACK TONGUE, &c.—“J. T. P.” in the *Cultivator*, wishes to know a cure for Black Tongue. A friend told me that a teaspoonful of gunpowder put on the tongue would cure. I have not tried it.

Will you or any one of your subscribers inform me how to cure the Big Shoulder in Horses? K. B.

P. S. Crops of Corn and Cotton are good.

West Point, Ga., Sept. 8, 1859.

WARTS ON FOWLS.—*Editors Southern Cultivator*—noticed in the August number of the *Cultivator* that one of your correspondents of Gaudaloupe, Texas, inquires “what is the cause and remedy for Warts on Fowls, &c.?”. I cannot exactly say what is the cause of the warts, but can give a quick and certain remedy for them. If the warts have a scab on them, pick it off; if not, scarify them and wash them two or three times (say once a day) with a strong solution of saleratus water, and they will very suddenly disappear.

Yours very truly, P. P. P.

BIRDS vs. GRAPES.—The mocking birds are very destructive to the Grape here. Within the last three years there has been at least 3000 killed by us and, apparently, there are as many now as before. Can any of your kind subscribers propose a remedy to exterminate them, without powder and shot? Respectfully,

R. B. CANOVA.

St. Augustine, Fla., July 16, 1859.

[We deeply regret the destruction of such multitudes of sweet “feathered minstrels”; but grapes and birds cannot well be raised together. There is no other remedy we think than the “murderous gun.”—Eds.]

BLACK TONGUE AND CATERPILLARS.—*Editors Southern Cultivator*—Seeing a request from J. T. P., in your September number, asking for a cure for Black Tongue in cattle, and a remedy for Caterpillars on apple trees, I herewith send a recipe for both:

For Black Tongue.—Have a swab of soft cloth made and attached to a handle two feet long; dip this in spirits of turpentine and wipe out the mouth of the animal so affected twice or three times, if necessary, and they will be over it in a few days. This I know to be a fact, for I tried it on my cattle last year, and did not lose one, when others had been trying salt, coperas, and other things recommended, and lost a great many.

For Caterpillars.—Put about among the branches powdered sulphur, and they will soon leave. If necessary, puncture small places in the bark of the trees and put in sulphur. Very respectfully, P. C. SHULTZ.

Summerville, S. C., Sept. 5, 1859.

PATENT OFFICE REPORT--AGRICULTURE.

THE Report of the Commissioner of Patents for 1858, has just reached us, and is fully equal, in all respects, to the valuable documents which have preceded it from the same Bureau. Grape culture, and the culture of fruit generally, is treated of at great length; as are, also, such subjects as the following:—Animals (domestic); Arrow Root, Bacon, Beef, Beer, Butter, Cheese, Clover, Cotton, Drainage, Flour and Meal, Forests, Gardening, Guano, Hay, Hemp, Hogs, Honey, Horses, Insects, Irrigation, Land, Metals, Meteorology, Molasses, Oats, Oils, Pork, Potatoes, Rice, Rye, Schools (agricultural), Seeds (trees, shrubs,) Sheep, Silk, Sorghum, Sugar, Tea and Tea Plants, Tobacco, Wheat, Wine, Wool, &c., &c.

We are indebted to Hon. D. J. BROWNE, the chief of the “Agricultural Division,” for several copies, which we have distributed. It may be obtained from that gentleman, or from the members of Congress from your District.

“THE FARMER & GARDENER.” is a new monthly of 16 pages, just started in Philadelphia, Pa., by A. M. SPANGER, 603 Market, at \$1 per year. It is very well edited, and neatly printed, and the publisher says he is determined to render it a “permanent institution.” We cheerfully place it on our exchange list, and wish it success.

Several notices of new agricultural books, &c., will appear in our next.

All subscriptions to the *Southern Cultivator* commence with the January number.

NOBLE LIBERALITY.

COL. P. ST. GEO. COOKE, former President of the Virginia State Agricultural Society, has given \$20,000 towards the endowment of an Agricultural School in Virginia. Some unknown friend to Agriculture has placed \$10,000 at the disposal of the Hon. W. C. RIVES for the same purpose. The *American Farmer* well remarks in regard to this judicious liberality: "Let all honor be done to the men who set such an example of munificence and execute their wise and liberal designs themselves. How much better than a post mortem gift."

Have we no gentlemen in Georgia, who, from their superabundant means, will imitate this noble example? What pleasure so great, in the decline of life, as to see a portion of the results of our labor employed in giving knowledge to the ignorant; a right direction to the erring passions of youth, and diffusing that practical knowledge so indispensable to the prosperity of the State? We thus see, with our own eyes, how our "memory shall live after us."

CORRECTION.—On page 259 of last number, (September) first line at head of the first column, will be found a singular error. Whether the "*imp*" that has been immemorially supposed to infest printing offices desired merely to see *his own name* "in print," or whether he produced this "typographical mutation" from an innate and Satanic love of mischief, we know not—but certain it is, that where we wrote "ill tempered *churl*," he made us say "ill tempered *devil*;" much to our surprise and regret. Our intelligent readers, of course, readily correct for themselves the ordinary and unavoidable "errors of the press," but one like this seems to require at least a passing explanation. Should a similar one occur in *our* pages, the reader may know that "Dr. Faustus" and his co-adjutor are again at work among the types, and that "we" are to be held guiltless!

FINE GRAPES!—We are under obligation to R. PETERS, Esq., of "Downing Hill Nursery," Atlanta, Ga., for samples of the following Grapes: *Devereaux*, Charter Oak, Herbemont, (or Warren,) Saluda, Ohio, Cross Timbers, Whitlow, To Kalon, *Warren*, Bland's Madeira, *Lenior*, *Concord*, *Elsinboro*, *Diana*, *Norton's Virginia*. Long. We have marked the best in *italics*, and would remind our readers that the *Devereux*, Ohio and *Lenior*, are nearly if not altogether, the same; as are, also, the *Herbemont* and *Warren* of most collections. With some, however, the "*Guignard*," of So. Ca., is called *Herbemont*; and this (*Guignard*) Grape differs materially from the *Warren*. The nomenclature of our Grapes needs a revision, as many single varieties are known under at least half a dozen names.

PRUNING THE GRAPE.—The article on pruning the Grape (with illustrations) which we had prepared for *this* number, is necessarily deferred until our next. It will then be in ample time for the present year's operations in the Vineyard; and we trust, be of some service to those who are beginning the culture of the Grape.

"TRANSACTIONS" OF THE NEW YORK STATE SOCIETY.

HON. B. P. JOHNSON, Secretary of the New York State Agricultural Society, has placed us under additional obligations, by sending us the Transactions of the New York State Agricultural Society for 1858—this being the 18th volume. These Transactions for 1858 make a handsomely printed and well bound volume of upwards of eight hundred pages. This, with the previous volumes, forwarded from the same kind and valued source, afford a subject of rich agricultural study. We had supposed that the volumes we had already received could scarcely be improved, but this is perhaps more interesting and instructive than any of its predecessors. The people of New York have reason to be proud of what their Society is doing as exhibited in these sterling volumes. The patronage bestowed by the State upon this Society is an important member of a series of thoughtful, wise and liberal acts of Legislation, which justly entitle New York to her high place among her sister States of this confederacy. The contrast of Southern Legislation, or rather the want of it, is very painful and humiliating.

The volume before us contains the admirable speech of Mr. WILLIAMS on Agricultural Education—an instructive series of farm reports (from which we shall hereafter copiously extract)—a treatise on the fishes of the State, their habits, mode of rearing, &c.—an elaborate article on the whole subject of fencing—the fifth report of Dr. FITCH on Etomology—the valuable report of Messrs. LAWES and GILBERT, on Manures for permanent meadow, &c. Both the beauty and value of this report are increased by a number of handsome illustrations.

☞ Mr. DAVID DICKSON, of Hancock, has our thanks for a box of his cider and domestic wine in bottles. Some of the cider is marked four years old and the wine seven. This cider differs from any other cider that we have ever tasted, and is a most agreeable beverage. Mr. DICKSON sent us his receipt for making it some time since, which was published in the *South Countryman*. The possibility of making such an article of cider and by a process so simple, is an additional argument for paying attention to the growth of the apple. We have reserved Mr. DICKSON's wine to be opened on some occasion on which there may be an assemblage of Georgia farmers, at which time the health of "the great cotton planter," shall be duly remembered.

CHOICE GRAPES.—Messrs. C. P. BISSELL & SALTER, of Rochester, N. Y., have placed us under obligations by sending us per mail, some sample clusters of *Logan* and *Delaware* Grapes. They arrived in good order, and were very fine, especially the *Delaware*. It will be recollected that we gave an illustration of the fine Grapery of Messrs. B. & S., in our August number, and we may remark that these gentlemen are very prompt and upright dealers, and thoroughly acquainted with their business.

☞ We return thanks to the Hon. A. R. WRIGHT, for a copy of vol. 8th of the Reports on "The Pacific Rail Road Routes"

HANCOCK COUNTY (GA.) FAIR.

THE Annual Fair of the Planter's Club of Hancock County, Ga., will be held at *Sparta*, from the 19th to the 22d of October, 1859.

The Opening Address will be delivered at 11 o'clock on Wednesday morning, the first day of the Fair.

The Annual Address on Friday, by Hon. ROBERT TOOMES, at 11 o'clock.

The Concluding Address on Saturday.

The usual rules and regulations as to appointment of Judges, and for the management of the Fair, as heretofore practiced by the State Society, will be adopted as far as practicable.

Any article of merit entered for exhibition, for which premiums are not offered, will be considered by the Executive Committee, and suitable premiums awarded.

All products presented for exhibition must be accompanied by a certificate that they were raised, made or prepared by the Exhibitor. No article will be admitted for exhibition after Wednesday night.

The premiums will be delivered in Silver Plate, and other articles of the value of the premiums offered for each article.

Editors and their families are invited to attend the Fair.

The Secretary's Office will be opened on the Fair Ground early on Wednesday morning, and Premium Lists may be obtained by addressing the Secretary, D. W. LEWIS, Esq., Sparta, Ga.

AGRICULTURE IN JACKSON COUNTY, GA.—A large number of the citizens of Jackson county met in the Court House on Friday, the 26th of August, to make some arrangements about organizing an Agricultural Club in Jackson county.

Thomas R. R Cobb, Esq., addressed the meeting in a short, but very appropriate, interesting and instructive speech; after which John J. McCulluch, Esq., was called to the chair and requested to act as President for the Club, and J. B. S. Davis requested to act as Secretary.

A proposition was then made for the names of such as would become permanent members of the Club; when the names of 33 were reported and enrolled.

WARREN AGRICULTURAL SOCIETY.—On the 9th of August, a meeting of the citizens of Warren county, Ga., was held in the Court House, for the purpose of organizing an Agricultural Society. A Committee was appointed to draft a Code of By-Laws and Constitution, and it was requested that a meeting be held in the Court House, in Warrenton, on the first Tuesday in September to adopt the same.

ATLANTA FAIR.—We have seen it stated that Hon. EDWARD EVERETT has accepted an invitation to deliver an Address at the Georgia State Fair, to be held in Atlanta, from the 24th to 28th of present month.

 THERE will be a Convention of Southern Planters, at Nashville, Tenn., during the Fair, on the 10th of this month. A general invitation is extended to all.

EDITORIAL NOTES.

FLOYD COUNTY.—There is probably not a Railroad in this country which, in the same distance, passes through a finer body of land than that which is traversed by the Rome Railroad between Kingston and Rome. This road passes along the banks of the beautiful Etowah and through an almost unbroken succession of farms of the best quality of river land. We remember this region of country, before the forests had been touched by the axe, save in the scattered Indian clearing. Twenty years of occupancy by the white man have made a terrible change in it. The fertility of all of the cleared land has been diminished. The fiery trail of the cotton plant, the nude clay and gaping gully attest the presence of the same race of men and the practice of the same scourging agriculture which has desolated the South and rendered it but the ghost of its pristine magnificence. In this connection the bare and washed hill sides suggest a resemblance between the Southern planter and the scourge of ancient Rome, of whom it was said: "The grass will not grow where he has trod."

Notwithstanding the evils of a culture without manure, without rest and without grass, the products of the soil are still very great, attesting its extreme original fertility. In the ride from Kingston to Rome, we observed a few cattle of the common breed, a few hogs of the same description, but so far as we recollect, not a single colt, either horse or mule, or a single sheep of any description, but always cotton and corn, with occasional fields of small grain. It is fortunate for the tourist and traveller that this complaisant road allows him leisurely to inspect the agricultural features of the country through which it passes. MARSHALL SOULT complained bitterly when they carried him through from Liverpool to Manchester at the rate of 60 miles an hour, because he was "prevented from seeing the country." A similar complaint cannot be urged with justice against the Rome Railroad—it allows full time for observation.

As this Road is a part of our system of internal improvements, and yet lies out of the route of extensive travel, some facts in regard to its business and prospects may be of interest to a portion of our readers. The length of the Road is eighteen and a quarter miles. The whole cost \$160,000. Its dividends for the last six years have averaged 8 per cent.—it is expected hereafter to yield a dividend of 10 per cent. The freight business of the road for the year ending July 1st was as follows:

Bales of cotton, 23,291; bushels of wheat, 108,482; corn, 19,898; flour, 167,200 lbs.; bacon, 82,057 lbs.; tobacco, 27,620; dried fruit, 127,071 lbs.; pig iron, 343,413 lbs.; casting and machinery, 62,753 lbs.; rags, 55,802 lbs.; Lard, 3,237 lbs.; wool, 530. Gross receipts amount to \$45,563. The number of stock holders in this road is eleven.

It is expected that the business of this road will be greatly increased by contemplated extensions. The road from Pensacola to Montgomery will be completed in 1860. There will be a gap in the connection, of fifty miles between Rome and Jacksonville, Ala. This gap will be

certainly filled. When this is the case, the comparative distances to the sea board from Rome will be as follows: To Charleston, 386 miles; to Savannah, 370 miles; to Pensacola, 330 miles, making the distance shorter by 56 miles to Pensacola than to Charleston and 40 less than to Savannah. When these connections are complete, material modifications in trade in this section of country may be anticipated.

Still greater changes may be expected from the opening of the Coosa River. That this will be done cannot be doubted. It would be questionable if this river passed through a region inhabited by Mexicans, Spaniards or Italians. But it is inhabited by Angle Saxons. It is to their interest that this river should be opened—therefore, sooner or later it will be done. The sooner the better for the interests of a considerable proportion of the three co-terminous States of Georgia, Alabama and Tennessee. Some instructive particulars as to the comparative cost of railroad and steamboat transportation were communicated to us by the very courteous and intelligent Superintendent of the Rome Railroad, Col. W. S. COOTHAN.

The cost of freight on sugar from New Orleans to Rome via Nashville is \$1.25 per cwt.—the freight from New Orleans to Nashville, 1400 miles, is 25 cents per cwt.—the rest of the cost accrues between Nashville and Rome.

Rome is but 800 miles by water from Mobile. If the river were opened to Rome, the cost of freight should be less than to Nashville. There are about 1000 hhds. of sugar annually sold in Rome. The saving of a cent on the pound freight would make a difference of \$10,000 in that article alone and about half as much in molasses.

A large shipment of bacon from Cincinnati to Augusta, via Baltimore and Savannah, cost 63 cents per cwt. At the same time a shipment of bacon from Cincinnati to Augusta direct through Nashville to Atlanta cost 85 cents per cwt.—a difference of 22 cents per cwt. in favor of the circuitous route, including the navigation of the Ohio, the voyage from Baltimore, re shipment at Savannah and freight on the Savannah River. Such items of saving in the cost on freight of the necessities of life, and also increased facilities of transportation of articles of produce, the railroad freights on which now amount to a prohibition, indicate to the people of the section of country referred to, that it is their interest to see to it that the navigation of the Coosa is opened. Important to all other business relations, it is of chief importance to agriculture.

It may be of interest to some of our readers to know the estimate which is placed upon the different kinds of Floyd land by an intelligent man. Etowah lands are estimated at \$40 per acre; Coosa land at \$35; Van's Valley land at \$40; Oostanaula lands at \$30; Texas Valley at \$20; Armuchee lands of uncertain value, but rapidly rising.

The average product of the county, per acre, in corn was estimated to me at 25 bushels, average worth, 60 cents; wheat 10 bushels, worth \$1. Etowah and Coosa lands an average of 1000 lbs of cotton per acre. It is the superior cotton crop, which we presume gives these lands an increased value over the splendid bodies

of land on Oostanaula river. The last are admirably adapted for meadow, and when the proper culture of the county comes to be understood, we do not believe that they will be exceeded in value by any lands in this country.

It is gratifying to the State pride of every Georgian to observe the rapid advance of many of the interior towns of the State. Prominent among these is the growing town of Rome. Its position is one of unusual advantage. Its leading citizens seem disposed to avail themselves of this advantage. The pulpits of this place are filled by clergymen of piety and decided ability. The schools are of a high character and are well sustained. A Young Men's Christian Association of more than 100 members (a large number in a population of 3000 persons) is exerting a salutary influence upon the morals of the town and its vicinity. In fact, when we consider the comparative recentness of the settlement of Rome, it is a subject of surprise to find buildings so costly and permanent, an industry so varied, and a society so well ordered and refined.

In our notice of the town of Griffin, in our last number, we expressed surprise at the extent to which the sale of carriages was carried on at that place. At Rome, we were equally surprised at the extent to which the manufacture of elegant furniture is carried on at two establishments, Messrs MILLS & SUMTER and Mr. DUCKER. These establishments employ between 40 or 50 men and do a business annually of about \$50,000. This is as it should be. It is by an aggregation of these items of trade that we are to secure commercial independence. The articles of furniture, many of them very elegant and wholly of domestic manufacture, sold at these establishments, compare very favorably, as to quality and price, with those bought at establishments at the North.

It is worthy of remark, that most of the recent brick buildings of Rome are covered with our own beautiful Georgia slate, from the Blance Quarries, in Polk county. The discovery of these quarries is an event in construction to the whole of Upper Georgia within reach of the railroads, increasing not only the economy of building and adding to its permanence, but giving great security against fire. Prof. SHEPARD, than whom there is not higher authority, after analysis pronounces this slate to be equal if not superior to the best Welsh slate.

We regretted not to be able to visit the promising nurseries of Mr. LAMBERT, near Rome. Mr. LAMBERT is an educated Belgian Pomologist, and is a graduate of the Belgian Agricultural School, the programme of study in which he has kindly communicated to us and which will be found on another page of this journal. We wish him a very great success. We should support our home Nurseries. The dose of "Malic Acid," which has recently been administered to "tree peddlars," will probably have been found so distasteful, as to induce a wholesome dread of its repetition. It will be observed from the Railroad returns that upwards of \$10,000 worth of dried fruit were shipped from Rome during the last year. These statistical reports are often very instructive. The report

which we have given presents one curious feature. From the mart of a strictly agricultural region, it gives a return of export of 530 lbs. of wool and 55,802 lbs. of rags!

We hope our Floyd friends will take mildly a little salutary suggestion: They have no agricultural society—no Fair—no Farmers' Clubs. We heard of no special attention to good stock, except on the part of one gentleman whose farm is, unfortunately, at a distance. Under these circumstances, we can hardly wonder that the rich bottoms of the Coosa, Etowah and Oostanaula, should produce annually more rags than wool. We do not know a county so favored by nature as Floyd—three large rivers and vallies unsurpassed in fertility—a charming climate—a railroad traversing it—a market for produce at home—it ought to be among the garden spots of the South.

H.

ADVERTISING!—A New York correspondent of the *Charleston Courier*, speaking of I. M. Singer, the inventor of the Sewing Machine, and his progress in life from an extremely poor young man to a millionaire, says:

"The amount Singer has spent on newspapers is very large; but large as it is, he once informed me that for every ten dollars he had paid to newspapers (as near as he could get at it,) he or his concern had received back one hundred dollars in profits, or an increased business."

STEAM PLOWS IN ENGLAND.—At the meeting of the Royal Agricultural Society in Warwick England, July 12th, a prominent feature of the exhibition was the collection of steam plows and steam cultivators. Sixteen steam plows were entered for competition, and ten steam cultivators, the last named being intended for cutting and thoroughly pulverizing the soil to the depth of six to nine inches along a track four and a half to five or six feet wide. The Manchester *Guardian* says that "the most peculiar and novel implement exhibited under this head is Romaine's patent steam rotary cultivator, which professes to perform perfect spade husbandry, digging six acres a day at nine shillings (\$2 16) per acre. The machine is very cumbersome and unwieldy, weighing ten tons, but it does not require any assistance from horses, as it is self propelling.

STEAM PLOWS.—The Executive committee of the Illinois State Agricultural Society have made arrangements for a trial of Steam Plows, to be held in connection with the Annual Fair at Freeport. Prizes of \$3,000 for the best, and \$2,000 for the next best are offered. The Illinois Central Railroad Company offer additional \$1,500 for the best steam plow, to gain which the machine must be exhibited at three points on the line of road. The awards in both cases are to be made by the Executive Board of the Society in connection with three machinists selected by them. Messrs. Hedges of Cincinnati, Gates of Chicago, and Allen of St. Louis have been chosen to the office.

 Create not imaginary difficulties; sufficient are the real ones we have each to encounter in the course of our lives.

Horticultural Department.

FRUIT TREES FROM THE NORTH.

EDITORS SOUTHERN CULTIVATOR—I see by the July number of your paper that one of your correspondents is afraid that the people of Georgia will purchase trees of Northern Nurserymen, to their own disadvantage, and you sympathize in that feeling and endorse the "Caution."

With your leave, I will reply to some of the propositions of "Malic Acid;" and between us, may we not hope that the truth will appear, and the community be protected from humbug, while they derive what advantage there may be from trade.

The statement that *late keeping* varieties of apples for the South, cannot be procured from the North is, in the main, correct, as those varieties are not much known out of the Southern States; nor even there; but our best nurserymen do procure scions and disseminate the trees among their Southern customers, and sometimes even in greater numbers than those sorts can be obtained South. Fine *late keeping* apples are still very scarce at the South and few nurserymen have any adequate supply of such varieties; the home demand in a single county should consume all the trees there are for sale.

The list of best Early Apples found in our Northern Nurseries is nearly identical with the list of sorts recommended by the best Southern Horticulturists and Nurserymen, as their respective Catalogues show; and the same is true to a still greater extent in the case of Pears, Peaches, Apricots and Grapes—many of these being even better at the South than they are with us.

There are, doubtless, seedling fruits, originating in Georgia, which have a special local value, and perhaps, upon trial, some of them would be found valuable for general dissemination; these should be propagated and sold by Southern Nurserymen, and their merits brought before their Northern friends; but there are also many old varieties, the product of much care in selecting and trial for many years, which should not lightly be laid aside. It takes a long time to prove a new sort to be really better than the old favorites, and the collections which long years of patient gathering have now brought into the hands of the Nurserymen are the surest resort of planters for good sorts.

The idea that a tree must be grown upon the soil in which it is to bear fruit, is a very erroneous one, as numerous facts show.

Trees are so constituted as to bear a certain range of heat and cold, soil and climate, and no process of acclimation will enable them to go beyond this range—we can only put the individual trees in such a state of health as will but enable them to bear the changes which they are so constituted by the Creator to endure. A healthy specimen of Bartlett Pear, Early York Peach, a Red Astrachan Apple tree, grown in France, in Georgia, or in New York, will bear all the changes of the soil and climate which it is possible to cause them to endure by rearing them upon the spot where they are to spend their lives.

The simple fact is, a locality which has such a temperate climate and favorable soil, as will cause the young trees to thrive in the best manner during the first three or four years of their lives, is the best starting point for any tree or plant. Nurserymen are well aware of this fact, and endeavor to procure their young stock and specimen trees and plants from such localities, as the immense annual importations of trees from the foreign nurseries to this country shows very plainly.

The experience of Horticulturists and fruit growers should certainly teach them to avoid all fruits and varieties of fruits which are known to be valueless, and to

order sparingly of those of which they are uncertain. It can never be truly for the interest of a Nurseryman to disseminate plants where they will be unprofitable to the planter. On this point the experience of planters is a sufficient check upon the operations of the nurseryman.

Southern and Northern nurserymen are both sustained and benefitted by the general dissemination of good fruit, trees, vines, roses and shrubs. The demand for trees depends more upon placing in the hands of the public in general the desirable and beautiful articles now found in the collection of good nurserymen than upon anything else—it is necessary that people should buy and plant that they may see and enjoy, and if they wish to buy at home in preference to ordering from abroad, we have no quarrel to make with them for so doing—what we cannot supply to our mutual advantage, we do not wish to furnish.

Northern, as well as Southern people, have been made to suffer for dealing with unscrupulous and irresponsible dealers in trees; and the only protection there is against loss in this manner is, for every man to see to it that he is dealing with men who understand their business, and whose standing and reputation is some guaranty that they will not be deceived.

Probably Messrs. B. or P. do not feel that they run any risk in importing a lot of trees from France or from Rochester, if they order of an honorable and experienced nurseryman—they expect the trees to grow as well and bear as good fruit as if raised in Georgia.

Trees of various kinds are annually shipped from Rochester to the most Northern, as well as the most Southern limits in which they will flourish, and the increasing demand at this point shows that they are as successful as any trees that are planted. In fact, there is scarce a nurseryman in good standing, from Maine to Georgia, but procures more or less of his stock from this place.

Yours respectfully,

H. E. HOOKER.

Rochester, N. Y., September, 1859.

PEAR CULTURE IN THE SOUTH.

An Essay, written at the Request of the Aiken Vine Growing Association, of South Carolina, and read before that body on Thursday, July 7th, 1859. By L E BERCKMANS, of Augusta, Ga.

MR. CHAIRMAN:—By resolution of the Society, communicated to me, June 16th, you have appointed me to prepare an "Essay on the Culture of the Pear."

The duty conferred upon me by said resolution would be more thankfully accepted if I felt myself better qualified to carry out the views of the Society. However, I hope to be able to throw some light upon the subject, by the result of over thirty years experience in fruit culture, on this and on the other side of the Atlantic, and by my almost exclusive attention to Pear Cultivation in the South, during the past two years:

The object of the Society in calling up the subject of *Pear Culture*, is undoubtedly to discuss thoroughly the advantages, inconveniences, profits and drawbacks of the cultivation of that class of fruit, in reference to its value as a marketable product, and as a reliable crop among the different fruit crops.

In taking this view of the subject, our first duty must be to divest ourselves of all prejudice in discussing matters of public interest; and as the production of such an important class of fruits as the Pear is at the eve of assuming large proportions, I cannot but highly approve the opportunity of putting the question before the public under the sanction of your authority, with a view to open the field to impartial discussions and informations.

The culture of every comparatively new or not sufficiently tested fruit or cereal, destined to occupy a prominent place in our markets, and to exercise a marked

influence upon the general diet of the people, is well worth the earnest consideration of the Agricultural and Horticultural Societies of the Union. It is, in case of success, a benefit conferred upon the community, and, in case of failure, heavy losses of time and money saved; for individual prejudices and hobbies, not to say anything about less worthy motives, are hard to be overcome; and were it not for such unique and far-famed institutions as the American Agricultural and Pomological Societies, the now almost cleared field of pomology would be a wilderness of confused notions, inaccurate information, and, worse than all that, of bitter personalities and disputations, where light and impartiality could hardly be expected to find their way.

Much as the Pomological Society has done for the selection and promotion of good fruits, we cannot expect to find among its documents sufficient information in regard to the South, where, indeed, the cultivation of the Pear is still in its infancy. Even in the North it is, and will be for some time to come, a much controverted subject—the result of which has been a general uneasiness, misgiving and doubt, in regard to the probability of raising large crops of Pears; and, considering so many would have to be discussed, so many objections to be overcome, our task becomes more difficult, and our wish to be brief and concise must yield to the necessity of conveying all possible information.

To proceed in a regular and logical order, we have to indicate the principal points to be discussed in due succession, and in regard to their respective importance.

1. The first question to be examined seems to be: Is the Pear Tree, as a standard or as a dwarf, suited to the South, as far as Florida and Louisiana?
2. The second is: Can it be cultivated with profit to a certain extent?
3. Third: Is it durable, and not more exposed to diseases than other products?
4. Fourth: Can we expect to sell the crops with prospect of regular profits? Then, what varieties and seasons are to be selected for the market?

5. What soils and aspects, local conditions, manures and treatment are the best to insure a successful cultivation of the Pear?

If I am not mistaken, these must be the main points to be examined in making up an essay—not a treatise.—Around those main questions other remarks will occasionally find place.

It must be well understood that the Pear Tree is, all things considered, of a more refined, and consequently of a more delicate and weak constitution than the Apple, Peach and the Cherry—the improved Pear Tree of our modern times is so far removed from the original wild parent found in the forests of the old continent, as to be altogether a different thing, and hardly bearing any likeness to that original wild type. Long since I supposed that this may be the cause of its weaker and more refined habits; for, we all know that the more we make plants or trees recede from their original type, the more they become delicate and subject to various diseases. This law of nature is universal, and in accordance with it, the more refined is the fruit, the flower, or the foliage, the more delicate will be the plant. This rule admits of but few exceptions.

But let the cause be what it may, it is a generally acknowledged fact, that the Pear Tree is more fastidious, less hardy, and requires a better management than most other fruit trees. It succeeds, however, where almost any fruit tree of the temperate zone succeeds, and it seems rather to be suited to a more Southern latitude than to the Northern States. More Pear Trees are killed by the immediate or immediate effects of the severe frosts of the North than by any other cause, acting farther South. The blight,

almost the only fatal disease inherent to the Pear Tree, is not worse here than in any other part of the Union, whilst the ravages of intense cold winters are never witnessed here.

That the Pear Tree seems to feel more at home this side of Mason & Dixon's line, is proved to me by three facts which I have closely observed during the last three years. The first remark is, that weak and outworn varieties, only fitted for *Espaliers*, in their native climate, and but ill adapted to the severe winters of the North, are in fine condition here in Georgia.

The other fact is, that some European varieties, although very new or of recent origin, will not do in the North, while they recover all their native strength and beauty here.

The third remark applies to the size and quality of the fruit, which, in most all cases, is superior in the South to what I ever witnessed it to be in other parts. My seedlings show their propensities or characters sooner; their maturity is promoted in less time; their foliage is often double the size of what I found it to be in the North: especially many of the inedited but most promising seedlings of Van Mons and Dr. Brinckle.

In regard to the Southern limits to be assigned to the Pear, I have not heard of a climate where it did not grow. I had occasion to unpack and to plant Pear Trees sent to our worthy Pomologist, Dr. Brinckle, in Philadelphia, as varieties from Brazil, Peru and Mexico; they were esteemed there as fine fruits, but they only proved to be inferior varieties of the old catalogues when growing here. This is another conclusive fact in regard to the adaptedness of the Pear to the very lowest latitude, as the same result took place in that instance, to wit: the improvement of an inferior sort to a fruit of good quality. To quote a few facts, I will state that the Bartlett is decidedly better here than in New York or Pennsylvania; that the White Doyenne is more hardy, more certain, and rather too rich; the Flemish Beauty, the Pratt, the Buffum, the Van Assche, are larger and better here than in the North. So with nearly all the Pears I had occasion to test in Georgia and South Carolina, with the exception of the old Winter Pears.

Varieties of doubtful quality in the North, as the Parfum d'Aout, Fondante de Septembre, Bellissime D'Ete, Belle de Bruxelles, which I found to be *uncertain* or of second quality in Boston, New York and New Jersey, are almost of first quality in my grounds in Georgia. So much for the influence of a Southern temperature upon the Pear. And, as for the so much dreaded action of the Southern sun upon the bark, let me remark that I found it not to be so prejudicial as it is commonly thought to be. I have planted all sorts of trees, and some with highly denuded bodies; I have not found any of them to suffer from *that* cause. The only pernicious effects in such cases is owing to the rash process of suddenly removing the protecting limbs from a fruit tree, when the body has not been exposed and inured, *from its early youth*, to the southwestern rays of the sun.

That the Pear Tree will and must succeed upon the quince stock, I have most satisfactory and convincing proofs—provided the quince stock be not exposed to the air and sun. As a tree or a bush, the quince tree is not so weak—it is then complete in its organism; but checked and deprived of its organic structure, it becomes feeble and liable to diseases. When the quince stock, below the bud, is destroyed by worms, it is owing to one of the following causes:

1. Unfitness of the budded variety to grow well upon the quince stock. (We have many of these.)
2. Exposure of stock, or *too* deep planting.
3. Excess of moisture or want of proper food in the soil.

4. The vicinity or presence of old decayed wood, roots or sticks, carelessly dug in with the tree when planted.

In all these cases it is sickness, either inherent or accidental. Once *fairly* started, there is no more danger for the dwarfed tree.

And now we must examine the much controverised subject: Can the Pear be grown with profit?

This is rather a complicated question, and I do not know how to answer it as briefly as I wish to do. As far as my personal conviction is concerned, I have no hesitation in replying in the affirmative, provided we stick to the following rules:

1. The selection of proper soil. All soils are not suited to the Pear Tree.

2. A locality sufficiently free from excessive moisture, and rather rolling than too level and flat.

3. The judicious and careful selection of hardy, handsome, productive and good varieties, selling not only as good, but also as fair and inviting fruit.

4. The selection of stock. Some Pears, if not all, growing upon the quince, are better upon that stock than upon the free or wild Pear stock. No Pears are, nor were ever, good upon the Hawthorne, Amelanchier, Mountain Ash, &c. We have tried that twenty years ago, and never succeeded in producing any good fruit, although we made trees grow finely for the first two or three years.

5. The proper attention and care bestowed upon the tree, which must be more than that given to the Apple, Peach or Plum. Next to the Grape, the Pear requires the greatest attention and skill. Everybody has not the patience to raise handsome fruit and to *form* trees which, in a season of abundance, will have their fruit so equally set and distributed all over the tree as not to split and break the limbs, as is so often the case.

Let us remark that the greatest care is only needed when the tree is very young. After it is once well shaped and begins to bear, it sends out less rank wood and takes better form and habits.

It would take more words than I can compress in an essay, to lay down the rules of judicious pruning, without which there is no future for the Pear Tree, at least in most cases, and among the most refined sorts. We must confine ourselves to a few remarks upon the profits and the choice of varieties suited to the market. In the vicinity of Boston, for instance, most handsome profits are realized from Pear crops. Although, judging from the quantity of Pears grown around that city, we should deem the market to be overstocked, still Pears sell in Boston from 50 cents to over \$4 a doz.-n. Some cities, as Philadelphia, have only a few inferior Pears in the market, and would pay any price if they could get these in some quantity. Two years ago the editor of the *Horticulturist* wrote me: "Much is written about Pears, but we can not buy any in our Philadelphia market—please let me have some, for love, for begging, or for money!" In fact the Pear is considered such an aristocratic fruit, (if I may use that term,) that those who grow them keep them for their own family, friends and visitors, as one of the finest luxuries. I have seen as much as \$6 paid for a dozen of handsome Pears in Boston, (in December.) No party is fashionable among amateurs without at least one fine dish of Pears. Messrs. Hovey, Austin, and many others, sell Pears in large quantities with very handsome returns. From New Jersey, Western and North-western New York, large quantities are sent to New York city. Col. Jno. Hebron, in Mississippi, makes his Pear Trees pay, and over. And when we consider that Pears, *to be good*, must be picked a few days before ripe, it seems just the article for transportation to distant markets. I have no doubt I can pick fine full grown Bartletts, pack them in barrels, send them

to New York, or Quebec, or Havana, and when they will be at the port of destination, and leisurely unpacked, they will just be in the very best condition to go to the market or to the table. In regard to the facility and security for, and the very improvement of the fruit by transportation, no other fruit can compare with the Pear, not even Oranges and Lemons—the Pear and some Apples being the only fruit which requires picking from six to eight days before maturing, to bring it up to its true quality. To make a Pear orchard pay, we need only the necessary skill and care, a well cultivated soil, and a climate where the bud is not exposed to be killed by 20 degrees below 0, or by the uncertain spring frosts of the North. We have not to care about markets—for such fruit sells everywhere, because it bears, and rather demands transportation.

Let those who have the means, time, skill and a little patience, try the experiment. They will find out that a well planted and well directed Pear Tree comes into bearing sooner than an Apple, and almost as soon as a Peach Tree—that in this climate the crops are most regular and certain—that the Pear Tree can be considered as an annual bearer, while Apples are not, and Peaches are very uncertain. The season of blossoming for the hundreds of varieties of Pears is so protracted, that only a score out of a hundred will be in blossom when a spring frost sets in, and the others will either have set their fruit or be dormant, and consequently out of danger, with an ordinary slight spring frost. I have reasons to consider the blossoms of a Pear Tree more hardy than that of a Peach or Apricot. Few worms attack the Pear—the rot, the oidium and the curculio are strangers to it.

But is a Pear Tree lasting? I have seen many a Pear Tree over a century old, and with proper care and management it will last as long as any other fruit tree. As I stated before, the diseases are mostly confined to the blight, which affects some varieties more than others—the old varieties more than the new ones. We can, in the actual state of science, not even indicate a remedy, we cannot ascertain the origin and cause (or causes) which produce that troublesome disease. All I have been able to do is to direct my attention and studies to the wood, foliage and general characters which seem to render a given variety peculiarly liable to the disease.—The class of Bartlett foliage and bark seems to be the most exposed, as I remark in the very seedlings bearing those characters. So is the Glout Moreau and the Vicar—notwithstanding that the bark and foliage are very distinct in the three varieties. To prevent the disease in old trees is impossible; for young trees there is a better chance—close watching and pruning, the prompt removal of the diseased wood, longitudinal incisions when the appearance of the bark is not sound, a good supply of special wood-forming manures, are the best means, if not to prevent the blight altogether, at least to stop its further progress, and in most cases the tree can be saved.

We have, it is true, a diminutive borer, which sets in just above a bud or a spur, and working down a few inches, circles or girdles the wood from inside-out, and destroys part of a limb in growing, or the body in very small trees. But this insect is scarce, and only injures part of the wood or unsound trees. I found it most active in some shrubs, as the Spireas, Deutzias, Seringos, and chiefly in the Lagerstroemia. Among thousands of young Pear Trees in my grounds, perhaps not fifty have suffered from that insect, and those were only partly injured. The blight will be found the worst in rich bottom soils, where the tree takes up too much ammonia instead of the proper constituents of the wood and organs of the tree—those are ashes, lime, phosphate, iron, silicates, plaster or gypsum. Those substances, with the carbon of the atmosphere, form the proper basis and food of all trees.

Ammonia and nitrogen, promoting a too luxuriant growth and porosity of the bark, seem also to promote the blight. I have been told by Mr. Downing that seasons have been witnessed at the North when at least every tenth Pear Tree was destroyed or injured by the blight. Still, Pear growers have not been discouraged; and, indeed, it never has, proved a disease as fatal and destructive as the borers, the yellows, the black knot, and the ravages of the curculio, from which the Pear Tree is altogether free. Thousands of Apple, Peach and Plum Trees are destroyed by these evil causes, and their crops rendered very uncertain if not complete failures. This tells much in favor of the Pear Tree.

The best season to bring Pears into the market would seem to be from the months of September to December, (Winter Pears being better suited for amateurs, as requiring too much watching and extra care;) then the Peach is scarce, the Plums and Figs are gone, and the Winter Apple has not yet taken its place in the market. This remark applies to our home markets. For the markets of the North the very earliest Pears are the best.

I have partly answered the question of soils and localities. I shall only add, that deep sandy loam soils, rather dark than light colored, Western, Eastern and Northern aspects, and rather elevated localities, seem to be best for the health of the tree and the setting of the blossom; and that Southern latitudes agree better with the Pear than higher latitudes, where often winters from twenty to thirty degrees below zero prevent all reliance upon a fair crop of refined fruits, such as Pears, Peaches and Grapes.

I shall not see the time when the South, from Virginia to Alabama, will be considered the fruit garden of America, but I am fully convinced that such a time must and will come, and that thousands of acres, unfit for the cultivation of cotton and corn, will be converted into remunerating orchards.

All we want is a little patience—a rare thing with a fast people. We must consider that fruit trees are different from sweet potatoes, although they do not require more, if as much care, and that the planting of rows of fruit trees in the field, at convenient distances, will not materially interfere with crops of potatoes, cow peas or vegetables, or any low growing crops that will not smother the young trees. If, moreover, we will consider that soils exhausted for ordinary crops still retain a great deal of the constituents required for a tree, it will be evident that fruit can often be obtained where other products must fail.

We have yet to find out what sorts of Pears are best suited to our Southern latitude. Every season, almost, brings us new Peaches, Grapes, Pears and Apples, superior to the older varieties, which will slowly work their way to the head of the list of prominent fruits. Among the native and foreign varieties, many have been found to be well adapted to our climate. We have a great deal more in expectation, and among my select seedlings, collected from this and distant countries, many give fair promise of being ranked, at some future day, among our best and certainly our most hardy and vigorous varieties.

Permit me to conclude this already too long chapter on Pears with some remarks upon the different opinions about this fruit.

The mistakes and deceptions which have so often occurred, and have discouraged many zealous amateurs, are mostly the result of unwise selections of old worn-out varieties, discarded and given up in their native localities and sold here, not as refuse and unsaleable stock, but under high-sounding or false names, and which must have proven, as they did prove, indeed, "dead failures." The newly obtained varieties are undoubtedly (with some few exceptions) the most vigorous, symmetrical and

hardy. Of all the Pears cultivated at present as leading varieties, a few only can be traced as far back as Duhamel or even Poiteau, (editions from 1785 to 1810.) The Duchess, the Beurre Superfin, the Beurre D'Anjou, the Belle Lucrative, the Clairgeau, and many others of our best leading sorts, were not known twenty-five years ago. I have hundreds of seedlings, selected from among thousands, with which I would not part for any consideration, so sure do I feel that some day they must take the place of such varieties as I do not consider PERFECTLY adapted to our latitude or to our wants. We must have hardy, beautiful, vigorous, productive trees, easily cultivated in all soils, and more easily kept in the right form and shape, with good or best and large fruit. What the last twenty or thirty years of experiments or good chances have done in that way, will be nothing compared to what is at present going on in our great Union. Seedlings are brought to notice every season from Maine to Alabama.

It has been my good fortune to be connected with many influential and well informed gentlemen, and thus to have got a chance to test nearly all the novelties, here in the South at the same time that they are submitted to the judgment of amateurs in other parts of the Union. Let us not judge the *Cultivation of the Pear* by the worthless varieties which have induced people to say Pears will not do in — (no matter what State;) it was the same in all States. When I first became acquainted in New Jersey, I was told "Pears would not do well just there," and now Professor Mapes, Dr. Ward, Wm. Ried, and many others, realise handsome profits, and have fine, almost certain crops every year. And why? Because they wisely discarded the old, sickly and run-out varieties of the old catalogues, when Pear culture was in its infancy, and took to the new sorts endowed with all the vigor, beauty and fertility of renovated products.

I have thus far spoken of the Pear Tree as a producer, in competition with the other fruit-producing trees of our latitude; but if we come from the orchard to the garden, we will find the Pear Tree the most indispensable, ornamental and convenient tree to be placed around dwellings and among our flowers and shrubbery. What is equal in beauty to a well managed and sound Bartlett, Superfin, Michael Archangel, Buffum or Urbaniste?

But we must conclude, and we will do so with a wish that more effectual and persevering efforts may be directed to this branch of rural economy. In a climate and with such a soil as ours, we must have the best Pears, as we have already the best Peaches and Grapes, to say nothing of our delicious Apples. We have the choice of localities, plenty of room, and the means to try experiments. We shall not remain behind, when all the North, much less favored by nature and climate, is fully alive to the importance of this question.

PEAR ON THE HAW STOCK.

EDITORS SOUTHERN CULTIVATOR—In reply to your correspondent, Mr. J. H. Johnson, of Marshall county, Ala., I will state, that all haws having red berries will take the Pear and Apple readily. The brown and the black berry haw, I have never tried, but think it probable that these might take also.

I graft the haw stock of medium size by scraping the ground so as to insert the graft just about, or a little below, the surface. Thorns of large size I saw off the stock some three or four feet above the ground, and insert two grafts; these generally take readily and come sooner to maturity. I have tried different varieties of Pear on the haw and have never failed of success. For further particulars I must refer your correspondent, Mr. J., to your correspondent of Torch Hill, Ga., "the King of Pears."

D. P.

THE SCUPPERNONG A TRUE NATIVE GRAPE, &c.

EDITORS SOUTHERN CULTIVATOR—In your September number, page 278, under the caption of "Grape Culture in Florida," you publish an extract from J. FISKE ALLEN's "Practical Treatise on the Culture and Management of the Grape Vine," containing extracts of two letters from "Hon. A. G. Semmes," of Florida, to the author of that book.

Some of the statements of the enormous growth of grafts of the foreign vine in the first season up to the end of June, and the size of clusters (8 1-2 pounds) on a graft 1 of Muscat, of Alexandria, seem almost incredible to us who, living further north, have never had experience of what a Florida sun can do.

There is one statement, however, given with a good deal of positiveness, which we cannot suffer to pass unnoticed, as conveying error, and only serving to create more confusion and uncertainty, in the history and nomenclature of our American grapes. When such statements get into books written expressly for instruction, and by those who profess themselves competent to instruct, they become fair subjects of criticism.

"Among the native varieties, the most valuable, I consider the Scuppernong, which cannot be cultivated at the North. It is claimed to be a native of North Carolina. This is a mistake. It is a Grecian Grape, known there as the *Alaric*, and from which the finest wines of Greece are made."

This is the first and only time we have ever heard the parentage and nationality of the Scuppernong brought into question. Its history is so recent, and the fact of its having originated in North Carolina so universally admitted, that it would have been superfluous to reiterate it, except for the sake of counteracting this erroneous statement. Were its history entirely unknown, its Botanical character at once and forever settles the question of its origin.

All the grapes of Europe and Asia are hermaphrodite in their inflorescence—this is, they bear perfect or fertile flowers, with stamens and pistils inclosed in the same corolla. All the American grapes are dioecio-polygamous—that is, some vines bear a staminate or barren flowers; others perfect or fertile flowers. Those who have planted the Scuppernong know that the seedlings come under the decisive characteristic of American vines.

Between the Scuppernong as now cultivated, and the wild Bullace, Bullet or Bull Grape of the woods, *vitis vulpina*, Linn., (*V rotundifolia M**.) there is no botanical difference, and any competent botanist in any part of the world, with specimens of the two before him in all stages of their growth, flowering and maturing of the fruit, would so pronounce. The color and flavor of the berry, in which only it differs from those in the woods, are accidental qualities, originating in some "sport of nature" and the vine having these qualities has been propagated by grafts, cuttings and layers. If a seed of the Scuppernong is planted, it most generally bears a dark colored berry, showing its tendency to revert to the original form. It is by the same course of reasoning that we know the parentage of the Isabella, Catawba and other native grapes. They preserve their botanical characters, which enable us to identify them with species which grow wild in our woods, and whether the history of their exact birth place is lost or not, we have characters remaining to certify of their American origin.

There are one or two minor errors against which we must protest before closing these remarks. They are given in so positive a manner that there should have been no doubt of their correctness, before they were committed to paper.

"The vine (Scuppernong) is never pruned. It prunes itself. The knife is fatal to it."

The Scuppernong is generally said not to need pruning but there can be no doubt that a judicious thinning out of the branches when they are much crowded, would improve the quality of the fruit as it does in all other fruit-bearing trees, shrubs, or vines. At any rate, we can deny that the "knife is fatal," seeing that we used it last winter quite freely in thinning the branches of ours, and the effect was an increased luxuriance in the remaining branches, and larger fruit.

"And, unlike other grape vines, it will not strike root from a cutting, being propagated exclusively by layers."

So we had always heard and believed, until told by a neighbor of his having been successful. In January last, we planted out twenty cuttings of Scuppernong. Most of them commenced to push out their buds and looked as promising as other cuttings, when the frost of the early part of April, killed all but six, which are now alive and going finely with shoots from a few inches to a foot or more in length.

R.

Aiken, S. C., Sept. 1, 1859.

THE POMOLOGICAL RESOURCES OF THE South.

An Essay, read before the "American Pomological Society," at its Seventh Session, held at Mozart Hall, in the city of New York, Sept. 14, 15 and 16, 1858.

BY D. REDMOND, ASSOCIATE EDITOR OF THE "SOUTHERN CULTIVATOR."

THE Pomology of the South is, in many respects, quite peculiar and distinct; and, as our section has heretofore scarcely been represented in your honorable and useful body, it may not be improper, at this time, to offer to the Society a brief statement of our experience with the different kinds of cultivated fruits—some hints on the proper modes of culture for the South—notices of our Southern seedling varieties, &c., &c.

APPLE.

A great deal of error and misapprehension has heretofore existed in regard to the capacity of the South for the production of the Apple; and, even now, you will find thousands of intelligent persons, North and South, who fully believe that it is impossible to raise winter apples in the South, and that it is necessary to look to the North for a supply of "winter" varieties. The labors of a few zealous promologists in North and South Carolina, Georgia, Alabama, Tennessee, and other sections of the South, however, within the past eight or ten years, have brought to our notice a large number of native Southern apples: mostly, perhaps, chance "wildings," but many known to have been carefully planted from the seed and fruited by the Indians and the early white settlers of the country. The best varieties of these seedlings have generally been found in the mountainous and middle portions of the Carolinas and Georgia, though excellent late sorts have also been produced in Mississippi, Alabama, and the southern and lower portion of the States before mentioned. Many of these native Southern Apples are superior in size, flavor and appearance, and fully equal in keeping properties, to the very best Apples of the North or of Europe; and it may, therefore, be taken for granted that the South can raise Apples in abundance and of the very best quality, if her people will only select their own native varieties, and cultivate them properly. Indeed, after many years experience in the South, with nearly every variety of fruit, we are prepared to rank the Apple as the surest and most reliable of all our fruits, except the Grape, and one which seems to adapt itself very readily to all soils and localities. We have seen, the present season, thrifty

and vigorous trees, loaded with fine fruit, from the lowlands of the seacoast, in the neighborhood of Savannah, to the mountain summits of Tennessee; and no where in the South have we known the Apple to fail, when it has received anything like proper attention. It would, perhaps, be difficult to give a selection of varieties adapted to the entire South; but we think the following can hardly fail to succeed in most sections. (We may here remark, that nearly or quite all the early summer varieties of the North do well with us; but that the Northern Fall and Winter sorts, especially the latter, are of no value whatever in our climate, as the heat of our Spring months forces them into premature ripening, and causes them to fall from the tree and decay. *The South must, therefore, look to her own native Seedlings for long-keeping varieties of the Apple*, and a proper selection of these cannot fail to be successful, as all experience has proved. The "Shockley" apple, a Georgia seedling, has often been kept in perfection from November to June; and the "Carter," an Alabama seedling, will hang on the tree in that latitude (32°) sound, crisp and firm, until Christmas, or even the first week of January.)

SELECT LIST OF APPLES FOR THE SOUTH.

Summer Varieties: Northern—Red Astrachan, Early Harvest, Sweet Bough, Early Joe, Red Margaret, Early Strawberry, etc. Southern—Yellow May, Julian, Carolina Red June, Family, Wonder, Aromatic, Defiance, Yellow Haas, Green Hass, [mislabeled "Horse,"] Nan-tahalee, Summer Sweet, Farrar's Summer, etc.

Autumn Varieties: Northern—Rome Beauty, Smoke House, Talpahocking, etc. Southern—Batchelor, Carolina Greening, Disharoon, Taunton, World's Wonder, Yopp's Favorite, Black Warrior, Kennedy, Rhode's Orange, Autumn Wine Apple, etc.

Winter Varieties: all Southern—Abram, Augustine, Blackshear, Buff, Bryar's Red, Boatman's, Battlefield, Buncombe, Carolina Russet, Cherokee Red, Cloud, Cook's Red, Carter, Camak's Sweet, Chestatee, Cullawhee, Cullasaga, Davis, Equinete, Elgin, Epting's Winter, Epting's Premium, Gully, Green Crank, Gordon's Seedling, Golden Pippin, Greening (Southern,) Greening (Pomaria,) Hoover, Hall, Hammond, Hameter's Late, Holly, Henley, Holladay's Seedling, Junaluskee, King Tom, Kittageskee, Lexington, Lorick's Cluster, Lever, Late Striped (Summer's,) Limber Twig, Mill's, Mead's Keeper, Meadow Woods, McDowell's Winter, Mangum, Myers', Maverick's Sweet, Moultrie's Winter, Mattamuskeet, Nickajack, Neverfail, Nonpareil, Nix's Green, Nequassa, Oblong Crab, Oconee Greening, Perkins, Pearmain (Clark's,) Carolina Pippin, Pippin (Albemarle,) Abram's Pippin, Brock's Pippin, Peake's Red, Peake's Yellow, Price, Pound, Red Warrior, Rabun, Residence, Rhyme, Ralph, Salem, Shockley, Stevenson's Winter, Santa, Strother, Selma, Santouchee, Tryon, Tenderskin, Thurmond, Wall, Wateree, Wilfong, Walker's Yellow, Yellow Crank, Yahooa, Yates.

From the foregoing list, embracing nearly one hundred varieties of native Southern Winter Apples, of superior excellence, it will be seen that our pomologists have not been wholly idle, and that we have, at least, inaugurated something like a nomenclature and classification of Apples adapted to our section. At a late meeting of the Georgia Pomological Society, held at Athens, there were exhibited five hundred and sixty-eight lots of fruit, including seventy-four varieties of apples, one hundred and forty-four of pears, ninety-nine of peaches, thirty-four of plums, eleven of grapes, and other fruits in proportion—all of which we cannot but regard as highly encouraging, when we consider the very brief existence of the Society, and the little interest heretofore manifested in the culture of the finer varieties of fruit.

The Apple, so far as our observation extends, is liable

to no diseases of any consequence; and may be considered a safe and profitable tree for extensive planting, especially if the native (Southern) Winter varieties are selected. The Summer varieties ripening at the same time with the strawberry and the peach, have the superior flavor of these fruits to contend with, and are not, therefore, as desirable, or so much sought after.

PEAR.

The same feeling of dependence upon other sections, and distrust of our own resources, which has heretofore prevented the extensive culture of the apple, has retarded the planting of the Pear: though wherever this delicious fruit has been fairly tried, it has attained a size and flavor elsewhere seldom known. Indeed, we have much reason to believe, that in the South only is the Pear destined to arrive at its highest development and perfection; and that it can there be grown with that certainty and profit which alone justify the care and attention which this somewhat fastidious and exacting tree demands. Most of the leading varieties known and cultivated at the North, succeed well in the South, either as dwarfs or standards, the principle requisites being deep, mellow and careful culture, and the training of the top of the tree *very low* and spreading, for the purpose of shading the trunk of the tree and the earth over the roots, from the scorching and blistering rays of the sun. With this system, and a liberal enrichment of the soil by proper fertilizers, the Pear with us does not seem to be liable to any diseases of sufficient consequence to deserve mention. We have not, as yet, succeeded in producing many Southern seedling Pears of marked excellence, though we doubt not that we shall be as fortunate as we have been with the apple, when the attention of our pomologists is more fully directed toward the production of fine new sorts from seeds. The example of our distinguished friend, Dr. L. E. Berckmans, and many others, in raising from seed and planting large Pear orchards of all the established varieties, in various parts of the South, will, we trust, give quite an impetus to the culture of this magnificent fruit.

PEACH.

The South is the true home of the Peach; and it attains with us, undoubtedly, its very highest degree of perfection. It has long been, and is yet, the favorite fruit of the people, no less for its intrinsic excellence, than for the ease with which it may be propagated from seed, and the early period at which it comes into bearing. Thousands of the very finest seedling Peaches, unnamed and comparatively unknown, are scattered throughout the South, along the roadsides, in the open fields, and in the remote corners of fences and hedges. The tree will sometimes bear fruit the second year from the seed, and always the third year; and when "worked," succeeds well either grafted or budded. Our nurserymen have many very superior sorts, almost unknown at the North or elsewhere, a few of the best of which I will mention: Amelia, Early Columbia, Baldwin's Late, Canary, Exquisite, Golden Ball, Lady Parham, Pocahontas, Elmira, Tecumseh, Julia, Bordeaux Cling, Eaton's Gold, Flewellen, Mitchell's Mammoth, Griswold, Henrietta, O'Gwynne, White Globe, and many others. But perhaps the most attractive and valuable of our late additions to the list of fine peaches, is the "Honey Peach," of China, one of the most delicious of all fruits, which cannot fail to become popular wherever it is known, and will succeed.

The Peach tree, however, even in our favored clime, has many enemies, and is liable to numerous disasters. Among the first is the borer (*Agrius excisus*), which is generally very destructive. The use of boiling water, poured freely into a basin-shaped cavity at the "collar" of the tree (to destroy grubs already formed,) and the planting of

clumps of the common tansy (*T. vulgare*) immediately around the trunk, as a preventive, have been found efficacious in some cases. But the most practicable and easy plan of destroying the borer, where the Peach is largely cultivated, will be found to be the removal, in the fall, of the earth for the space of a foot, and the depth of from three to six inches, exposing the stem and "collar" of the tree to the action of the frosts of winter; this cavity to be refilled in the spring with fresh earth, heaping it up into a conical mound, to the height of ten or twelve inches around the trunk, with a spadeful of sand, mixed with salt, lime and sulphur, and allowing it to remain so until fall again. We have tested this method for some years past, and cordially recommend it to the public. Upon the first removal of the earth, if any borers are found in the tree they can be destroyed with the point of a sharp, slender knife-blade; and if the system above indicated is regularly kept up, it will seldom be necessary to resort to that somewhat dangerous tool afterwards. The berries of the "Pride of India" or "China Tree" (*Melia Azedarach*) placed in the cavity around the bole or trunk of the tree, are also said to act as a preventive of the borer.

When the Peach tree receives anything like proper culture or attention, in our climate, it is liable to few or no diseases; and is far more thrifty and long-lived than in Northern latitudes. We have no "yellows," nor similar malady; and all that is necessary to keep the tree in perfect health, is judicious pruning ("shortening in") and frequent stirring of the surface soil around it. We generally find it no disadvantage to raise crops of field peas, melons or sweet potatoes in our Peach orchards, provided the refuse of the crop (stalk, leaves, &c.,) is left on the ground, and the growth of foul grasses and weeds prevented by constant culture. The greatest drawback on Peach raising in the South, is the liability of the fruit to be cut off by the late Spring frosts. The warm weather of February and early March, generally forces our Peach trees into blossom; and it too often happens that the succeeding frosts destroy the crop utterly, and blast the hopes of the cultivator. The fruit is seldom destroyed in the blossom, and never while the buds are dormant during the winter. The most trying and critical period, with us, is during the early part of April, after the blossom has dropped, and the fruit is about the size of a pea: though we have seen the crop destroyed at a still later period. We are not aware that any economical and practicable plan of saving our Peach crop from Spring frosts has yet been discovered, though partial success has attended the building of smouldering fires in the orchard, the retarding of the time of blooming, by prunning ("shortening in") just as the buds begin to swell, covering the ground around the tree with a heavy mulch of leaves, straw, &c. We cannot consider the peach crop as generally certain oftener than three years in five; and yet, with this serious drawback, it has been found very profitable, by those who have railroad and other easy access to our prominent seaports, to plant very largely for the New York market, which has been supplied to a considerable extent during the past four or five years, with early peaches from Georgia and South Carolina. We have in the South, for home consumption, an almost constant succession of Peaches (mostly native seedlings) from the middle of June to the first of November—from four to five months—and, were there sufficient demand, could readily ship this fruit to the North during the greater part of that time.

[CONCLUDED IN NOVEMBER NUMBER.]

 Men long inured to vice, and habituated to folly, afford rare instances of reformation; youth is the proper season.

GRAPE CULTURE---LONG AND SHORT Training.

It will be seen from the following discussion at the August meeting of the Cincinnati Agricultural Society, that the weight of opinion there is decidedly in favor of giving our native Grape vine more room both above and below ground. Notice the remarks of Messrs. ADDIS, WELLS and DICKINSON, which we consider especially applicable to Grape Culture in the South. It must be remembered that our long season and hot sun are particularly favorable to the full development of the saccharine principle of the Grape, and that, in comparison with ours, the vines of the West are at best quite thin and sour:

"At the request of the President, Mr. Buchanan stated that the Grape crop was now quite promising. The crop was better than any since 1853, but not quite so good as in that year. The wood was beginning to ripen, and there was nothing to fear but hail storms. He had found no difference on the trellis or in the vineyard—in long or in short pruning. He had cultivated some vines much, some not at all—no variation as to rot, but those which were properly pruned according to general plan, and cultivated, were the best with him. The more wood the more grapes; but how would they ripen most suitably for wine? He has as much rot on arbors as in the field.

Mr. Petticolas observed that Grapes touching the wall, he had found, would not rot—attributable to the absorption of moisture and emission of heat from buildings, &c.

Mr. Haseltine said that he had noticed Grapes on Dr. Smith's old place, trained and growing in every way—long and short pruned—some covering trees, others trailing the ground—but those immediately against the house were the best. Some on trellises adjoining the house had rotted badly.

Mr. Rentz said that he had a good crop, and endorsed what Mr. Buchanan had said.

Mr. Mosher confirmed all that Mr. Buchanan had experienced as relating to the Grape on his own place, Latonia Springs. He would merely add that he had half an acre which had been left late, and not tied up, or trimmed properly as he thought, and the Grapes there had rotted the worst.

Mr. Addis said that at Cheviot, of those tied to stakes in the old way, one-half had rotted. With his own long pruned, and laterals not cut, but tied up, they were not so badly rotted. Mr. Whitmore's, on the trellises, were exempt from rot. He considered that probably one of the best methods for success would be to distribute vines on trellises, and long pruned and trimmed on long poles, or somewhat in that way, and he believed ten acres would produce as much as twenty-five would in the common vineyard fashion. But Grapes, particularly in this way, must be well fed. Witness the Hampton Court vine, in England, which produced two thousand clusters a year, and extended over a very large space, and its great bearing and size was attributable to its roots having run into a vault of great capabilities of affording it nutrition.

Mr. Wells had trained grapes for twelve years on trellises, as long as possible, and produced twice the amount of the vineyard method on the same space—sixty-five clusters on forty feet. They always ripened well.

Mr. D. L. Dickenson observed that the trimming was generally too close. He knew a Connecticut vine yield fifteen to twenty-five bushels, covering two large porches and roof of a house. He thought the vineyard Grape should be grown twenty feet apart, and trailed along crosswise. They would produce greatly more and healthier fruit, freer from rot.

Dr. Mosher impressed upon the members that pruning

would not produce fruit of sufficiently fine quality for wine. The juice would probably be ten degrees lighter, one vine should not produce more than ten or twelve good clusters for wine. For sale, for the table, of course would be different; then prune long for quantity, but instead of wine you would probably have something more like vinegar, and sugar is not admissible.

Mr. Wells differed from Dr. Mosher; he never drank better wine, and so said his friends than from Grapes trained long. In this case, however, he was for giving the vines "high living."

Dr. Warder stated that Mr. J. Werk, a distinguished vine grower, had not found long pruning profitable for wine.

NATIVE VINEYARDS AND CHEAP LANDS OF Arkansas.

A very intelligent gentleman of Arkansas, in a private letter to one of the Editors of this journal, says:

"The lands about which I wrote to you some time since are being taken up very rapidly by settlers, under the Graduation Law, at 25 cents per acre. This land all lies well, and is susceptible of a very high state of improvement. Lands lying over 6 miles from Pine Bluff can be entered at 12 1-2 cents per acre. As only actual settlers can enter this land, and each person can only enter 320 acres, the land is worth from \$5 to \$10 as soon as entered and secured. On some bodies of this land I can gather more grapes on eighty acres than can be gathered on any but the very largest vineyards in Georgia. These would be almost entirely of the Black Grape, which correspond very nearly to the Black July, described in your pamphlet on Grape Culture, but ripens in August. I repeat my opinion that these hill lands of Arkansas are the very best lands for a vineyard in the United States. There would be no necessity for importing a single grape for the vineyard, as all could be procured on the ground, of the best native Grapes. The soil evidently suits the grape, as proved by the fact that the grapes do grow all over its surface, and bear profusely. These lands are eminently accessible, being within a few miles of the Arkansas River, and within a few hours of Little Rock and Pine Bluff, and a few days of New Orleans by steamboat. They are cheap, and can be entered at from 12 1-2, 25 to 75 cents per acre under the Graduation Act by actual settlers."

RHUBARB CHAMPAGNE.—We are indebted to a friend in Cincinnati for an opportunity of tasting the celebrated Champagne Wine, manufactured by Mr. J. Eshelby, of Cincinnati, from the ordinary Rhubarb or Pie Plant.

In taste and flavor it closely resembles Sparkling Catawba, except that it leaves a slightly bitter and astringent taste in the mouth, which prevents its being insipid. It is very clear and beautiful, and put up in precisely the same style as the best French Champagnes. We understand from our friend, who is entirely disinterested, that it commands a ready sale at nearly the same rates as the Sparkling Catawba.—*Gardener's Monthly, of Philadelphia.*

[The Rhubarb, or Pie Plant, grows well in the South, on low, moist, rich grounds, and is also very valuable for the making of pies and tarts, early in the spring, before any of our fruits are ripe. "Cahoon's Mammoth," "Linnaeus," "Downing's Colossal" and "Victoria," are all choice varieties. See WHITE's "Gardening for the South," pp. 253-6, where full directions are given for its culture.—EDS.]

PEACHES FOR THE SOUTH.

Tested and recommended by R. PETERS, Atlanta, Ga.

THE time of ripening, more especially of the earlier and later sorts, varies greatly from year to year—infuenced by soil, locality, age of the tree, weather, cultivation, &c.

Early Tillotson, for instance, in 1858, ripened in Mississippi June 6; in Macon, Georgia, June 15; in Graniteville, South Carolina, June 15; Atlanta, Georgia, June 23; and this season it ripened in Graniteville, South Carolina, July 4; and in Atlanta, Georgia, July 12.

Peach Trees propagated at the South, are entirely exempt from that destructive disease, known as the "yellow-lows," to which Northern grown trees are so liable.

The only enemy of the Peach Tree at the South, is the Peach Tree Borer, (*Ageria excisiosa*) and this insect, so destructive to our Southern orchards, can readily be exterminated in two or three seasons by banking the earth around each tree, during the month of May, to the depth of ten or twelve inches, allowing it to remain until early in November, when it should be scraped from the tree, exposing the collar and the main roots to the frosts of winter. The Borer, in its moth or egg-laying stage, is, by the above process, forced to deposit its eggs on the dry hard bark of the tree, where a few worms that hatch and escape the frosts of winter, are readily reached by the knife of the orchardist. In Atlanta, Georgia, the first moths of the Borer make their appearance early in June, and from that on to October, each crop requiring about twelve months to pass through the several stages from the egg to the moth.

No. 1. *Early Tillotson*—Ripe June 15th to 25th; size, medium; freestone; flesh white; the best for market purposes of the very early varieties, and deservedly popular at the South for its productive properties, its fine flavor and handsome appearance.

No. 2. *Early York*—Ripe June 21st to 30th; size, medium; freestone; flesh white; a very delicious peach, but rather too delicate for marketing.

No. 3. *Cole's Early*—Ripe June 23d to 1st July; size, medium; freestone; flesh white; a handsome showy peach of fine flavor.

No. 4. *Fay's Early Ann*—Ripe June 25th to 1st July; size medium; freestone; flesh white; a very pretty peach, of superior flavor.

No. 5. *Trot's Early*—Ripe 28th of June to 5th July; size, medium; freestone; flesh white and firm, well adapted to marketing.

No. 6. *Early Admirable*—Ripe July 1st to 12th; size, large; freestone; flesh white; one of the best of its season, firm and of good quality.

No. 7. *Eliza*—Ripe July 3d to 10th; size, large; free-stone; flesh yellow; a very productive and desirable variety.

No. 8. *George IV*—Ripe July 5th to 15th; size, large; freestone; flesh white; one of the best, most showy and delicious of peaches.

No. 9. *Grosse Mignonne*—Ripe July 5th to 15th; size, large; freestone; flesh white; by many persons considered the best peach in cultivation.

No. 10. *Chinese Cling*—Ripe July 6th to 20th; size, very large; clingstone; flesh white; a new variety recently introduced from China, of good quality, valuable for marketing.

No. 11. *Crawford's Early*—Ripe July 6th to 20th; size, very large; freestone; flesh yellow; a magnificent peach of good quality and deservedly popular as a market variety.

No. 12. *Early Newington*—Ripe July 16 to 25; size, medium to large; semi-cling; flesh white; a truly delicious and beautiful peach, worthy of a place in every orchard.

No. 13. *Georgia Cling*—Ripe July 16 to 25; size, medium to large; clingstone; flesh white; a Georgia seedling of great merit, possessing size, beauty and quality; one of the earliest and best clings in cultivation.

No. 14. *Vanzandt's Superb*—Ripe July 18 to 26; size, medium to large; freestone; flesh white; a magnificent peach of the highest flavor, and in every respect a decided acquisition.

No. 15. *Lemon Cling*—Ripe July 18 to 28; size, large; clingstone; flesh yellow; a beautiful lemon-shaped variety, excellent for marketing and preserving.

No. 16. *Brevoort's Morris*—Ripe July 20 to 25; size, large; freestone; flesh white; one of the highest flavored peaches in cultivation.

No. 17. *Old Mixon Cling*—Ripe July 25 to August 5; size, medium to large; clingstone; flesh white; truly delicious, rich and melting; should be in every collection.

No. 18. *Susquehanna*—Ripe July 25 to Aug. 5; size, very large; semi-clingstone; flesh yellow; a seedling from Pennsylvania; a very attractive peach of good quality; capital for marketing.

No. 19. *Flevellen*—Ripe August 3 to 12; size medium; clingstone; flesh red; a seedling from middle Georgia, where it ranks as the best cling in cultivation.

No. 20. *Crawford's Late*—Ripe August 2 to 10; size, large; freestone; flesh yellow; a superb peach of fine flavor.

No. 21. *Buckner's Red*—Ripe August 1 to 20; size, large to very large; semi-clingstone; flesh yellow; a seedling from middle Georgia, of great merit; a very showy, remarkable keeper, and, therefore, valuable as a market variety.

No. 22. *Canak's Newington*—Ripe August 4 to 16; size, medium; clingstone; flesh white; one of the best, if not the very best of the August clings; a great bearer and valuable for all purposes.

No. 23. *Old Mixon Free*—Ripe August 6 to 12; size, large; freestone; flesh white; moderately productive and of good flavor.

No. 24. *Druid Hill*—Ripe Aug. 8 to 18; size, large; freestone; flesh white; a truly luscious and attractive variety; should be in every collection.

No. 25. *Brown's Free*—Ripe August 11 to 20; size, very large; freestone; flesh white; a showy peach; valuable for marketing.

No. 26. *White English*—Ripe August 16 to 25; size, medium to large; clingstone; flesh white; a seedling from upper Georgia; very popular with the Ladies for preserving.

No. 27. *Abbott's Late*—Ripe August 16 to 26; size, large; freestone; flesh pink, firm and of fine flavor.

No. 28. *Pace*—Ripe August 18 to 29; size large to very large; freestone; flesh yellow striped with red; a well known Georgia seedling of the Indian Peach class, and by many persons highly valued.

No. 29. *Tinley's Superb*—Ripe August 21 to 30; size, very large; freestone; flesh of a bright orange; a seedling from the Pace—a magnificent and luscious variety.

No. 30. *Ward's Late*—Ripe August 25 to 30; size, medium to large; freestone; flesh white; one of the best flavored of the August freestone peaches.

No. 31. *Clark's September*—Ripe September 3d to 12th; size, large; clingstone; flesh white; a very beautiful and high flavored seedling from DeKalb county, Georgia.

No. 32. *La Grange*—Ripe September 5th to 18th; size, medium to large; freestone; flesh white; decidedly an acquisition.

No. 33. *President Church*—Ripe September 15th to 25th; size, medium; freestone; flesh white; a seedling of Athens, Georgia, and there highly prized.

No. 34. *Alberge Cling*—Ripe September 21st to 30th; size, large; clingstone; flesh yellow; of fine flavor and showy exterior.

No. 35. *Eliza Thomas*—Ripe October 1st to 20th; size, very large; clingstone; flesh white; a seedling from the garden of Mr. T. L. Thomas of Atlanta, Georgia; very productive, of fine quality; decidedly valuable.

No. 36. *Nix's Late*—Ripe October 6th to 20th; size, large; clingstone; flesh white; a seedling from Newton county, Georgia; valued for preserving and marketing.

No. 37. *Calloway Cling*—Ripe October 10th to 25th; size, medium; clingstone; flesh white; a peach of capital flavor and handsome exterior.

No. 38. *Baldwin's Late*—Ripe October 25th to November 10th; size, medium; freestone; flesh white; a seedling from Alabama, variable in size and quality, but often handsome and of fine flavor; the premium peach of the Georgia State Fair, October, 1858.

No. 39. *Cowan's Late*—Ripe October 25th to November 15th; size medium; clingstone; flesh white; a seedling from lower Georgia; one of the very best late clings; of a rich creamy color and good flavor; may be kept until December.

No. 40. *Cherry's November*—Ripe November 1st to 15th, size, medium; clingstone; flesh white; a seedling from West Point, Georgia, often of excellent quality, but variable, like all of the very late peaches.

THE APPLE IN MIDDLE GEORGIA.

EDITORS SOUTHERN CULTIVATOR—Among the Fables that adorn our literature, I know of none whose moral opportunities have been so signally perverted as that of which I am about to speak.

An irate Orchardist, of mature years, finds a lad with horticultural proclivities, in the head of his Apple Tree, engaged in sampling the fruit.

Without offering to aid in his education by giving him wider opportunity to compare specimens, he presents him, first, with a totally indifferent Botanical production; and when "the young (green apple) sauce-box tells him plainly that he will not (come down); gets up a Geological demonstration of the most violent character, and fetches him down with a "rock."

When we remember that the youth of this Republic are trained to hold their faces during the above recital, exactly as though their sympathies were profoundly enlisted in behalf of the injured excellence under the tree, and as though combined "jorum" and "galorie" were a mild mixture for the boy in it; and when we reflect that human sympathy, being of the nature of a wild asses' colt, shy and stubborn, can only be forced at the hazard of hypocrisy, we may begin to tremble for the foundations of the social fabric.

On the other hand, had that Fable been so constructed as to illustrate the charming interest which old age should take in the pursuits of youth; and the still more charming respect due from youth, who eats fruit, to old age, who raises it, we would have had by this time, a much larger number of intelligent Pomologists and ingenuous youth, than we are likely, within any reasonable period, to be blest with.

To have model orchardists, we must adopt the rule which prevails as to the orchard; that is, we must begin with very young plants. We should be very careful to relieve the character of any fruit from imputations of sevile wrath and juvenile stone-bruisures; for these, being the "fun of the thing," enter so largely into its flavor, as materially to impair the nice discrimination in matters of taste which it is our business to cultivate.

Children of all ages have a singular propensity to injure fruit trees, especially in respect of knocking the bark off. True, they have herein not only the illustrious example of Washington, but the published precepts of certain more modern cultivators. As it is probable, however, that a tree is a little better off for its bark, especially in a rabbit country, a due regard should be had to this in the rearing of our young nursery-man.

A child (of any age) that "chunks" a tree, should be taught, on the spot by a twigular application of "lex talionis" that the tree can hurt back.

There is, however, very little difficulty in establishing a mutual good understanding between a child and a fruit tree. The foundations of it are laid deep in the nature of things, and they will not disappoint the generous care that judiciously builds thereon.

Give the child a tree. Let it be a marvel of its kind for thirst, beauty and productiveness. Guard it like Argus; let him perform every manual operation conducive to its welfare; and do you see that nothing is neglected that shall insure the earliest success—for early success is a life-long stimulant. Then, if you shall fail to see a development in the boy's mental and physical nature, commensurate with the care and expense, you still have in reserve the pop-gun and the pony, the plantation and hands, the idleness and isolation to which his nature condemns and qualifies him.

It sometimes seems as though there was no place for the moiety of the rising generation. The profession crowded ad nauseam; the governmental offices beyond an honest man's hope, or a decent man's desire; and daily labor under our Southern sun, a condition to which no father would condemn his child, if he could help it; yet, if one were called upon to select an entirely new business, on which to predicate the future of his offspring, I don't know of one to which he should more seriously incline than that which both the soil and climate as well as taste and temper concur to make the most delightful, and which the want, alone, of proper knowledge and early training fails to make the most profitable—I mean, of course, fruit raising.

Isn't it time to raise Fruit Raisers?
Torch-Hill, 1859.

T.

GRAPES---A SUCCESSION.

A very careful amateur, who cultivates the Grape near Atlanta, Ga., gives us the following list and time of ripening there. With us, the same varieties are from one to three weeks earlier:

"Leaving out Foreign Grapes, and with the lights before me, I would adopt, for a succession of crops, the following list. Remember that Black Hamburg has been truly splendid; so has Purple Hamburg and several others of that class:

Lenoir, 25th of July to 16th of August.

Concord, 1st of August to 15th.

Diana, 5th of August to 20th.

Delaware, 1st of August to 25th.

Catawba, 10th of August to 15th of September.

Elsinboro, 15th of August to 30th of September.

Norton's Seedling, 20th of August to 1st of October.

Warren, 1st of September to 15th of October."

FAIR OF THE COTTON PLANTER'S ASSOCIATION.—Arrangements are now making to hold a Fair in this city, on the first week in December. We learn that the necessary funds for premiums, fixtures, &c., are mostly raised. We have not seen the general programme, and, therefore, cannot now give the particulars. Macon will, no doubt, do her best to sustain her former reputation in such matters.—*Macon Journal of Messenger*, Aug. 17.

JOHANNISBERG WINE...ITS ORIGIN, &c.

Translated from the "Courier des Etats Unis," by L. E. B.

In the year 1716, the Domain of Johannisberg, now in the possession of the family Metternich, was left to the Abbott Princes Fuldes. One of those Princes who governed from afar this property, forgot, in 1724, to order the vintage to take place. The grapes were rotting on the vines, when they concluded to pick them; and, to the great surprise of all, the best wine came from those over-ripened grapes. Ever since, the grapes are picked as late as possible, and the *dead-ripe* berries kept separate from the others.

It is from those *slightly rotten* berries that the great wine is made, called "*Potentate Wine*," because it is reserved for the cellars of kings and sovereigns. A bottle of that wine is sold, on the spot, from 4 to 6 dollars, when it can be bought at all.

[How would that do for some of our grapes? How would it do to let the grapes wither upon a thin layer of straw, after picking, and then press the reduced and concrete berry, as it is done with the *Vinde Paille*, of Saint Perray, which sells at 2 and 2 1-4 dollars in Burgundy, where it is made—a high price for that country?—Eds.]

GRAPES, &c., IN OHIO.—ROBT. BUCHANAN, Esq., of Cincinnati, Ohio, writes us under date of Aug. 12:

"The Grape crop in the Ohio Valley promises to be very large—the largest since 1853. The season for rot is now over, and we have nothing to dread but hail storms. Our vintage this season will be two weeks earlier than usual.

"The Apple crop is small, but one-fourth of an average. The Pear but little better, say one-third. The Peach about half a crop. Quince, abundant."

GERMAN AGRICULTURE.

In the prosecution of our inquiries as to the relations of labor and land, we addressed some questions to a gentleman in the town of Tritilar, near Cassel, in Electoral, Hesse, Germany. An extract from this letter, in answer to our questions, will be found below: Southern Agriculture has, as yet, but one settled principle, and that is to *recrest from the soil the greatest possible annual return*. We have learned, from the waste of our capital in the exhaustion of our soil, that this principle is ruinous. We have erred. What are our errors? How shall we repair them? These are questions of moment. It will aid us in their solution, thoroughly to inform ourselves of the practice of those who have brought their landed estate into such a condition that it bears a high price, gives a good annual return, and increases constantly in fertility. Hence the inquiries which we are earnestly presenting:

Question 1st. What is the current price of land per acre? 75 to 150 thalers.

Question 2d. What is the yearly rent per acre? 3 to 5 thalers.

Question 3d. What is the amount of wages per 100 acres? 200 to 250 thalers.

N. B. 1-4, or 25 acres of this considered as pasture and meadow land.

Question 4th. How many horses, head of cattle, hogs and sheep are kept per 100 acres? 2 horses, 2 yoke oxen, 6 to 8 neat cattle, 100 sheep.

Question 5th. What is the average yield per acre in

wheat, oats, rye, grasses, turnips, potatoes, &c.? Wheat, 2 stacks; oats, 3 stacks; rye, 2 1-2 stacks; turnips and potatoes, 50 to 75 sacks.

Question 6th. How many cart loads of manure per acre? 6 to 8 loads.

Question 7th. What animals pay best? Horned cattle.

Question 8th. What is the current price of wool per cwt? 50 to 80 thalers.

Question 9th. What is the current price of beef? 3 to 5 groschen per lb.

Question 10th. What is the current price of pork? 3 to 5 1-4 groschen per lb.

Question 11th. What is the current price of mutton? 3 1-4 to 4 groschen per lb.

Question 12th. What is the current price of hay? 15 groschen to 1 thaler per cwt.

Question 13th. What is the current price of butter and cheese? 6 to 10 groschen per lb.

The acre is one hundred and fifty rods.

The stack is 50 bundles.

The sack is 150 lbs.

The cwt. is 100 lbs.

The thaler is 30 groschens.

The groschen is 2 1-2 cents.

Let the Southern planter study the answers to the above questions. They are presumed to apply to Germany generally. The price of land, it will be seen, is materially lower than in England and Belgium, but still greatly higher than it is with us. Observe the proportion of live stock—contrast this proportion with the exhibits of our census returns. Land at about \$125 per acre, and yet 2 horses, 4 oxen, 6 to 8 head of other cattle and 100 sheep to the 100 acres. Twenty-five out of the 100 acres in meadow and pasture—yet, hay, mutton and wool sell at a less price than with us.

It is certain that land in Germany pays an interest, or it would fall in price. It is certain that a large proportion of their crops sell for no higher price than with us. It is equally certain—rating our lands at an average of 10 or 20 dollars per acre—that the same general principles with proper modifications will be attended with greater profit in Southern America than in Europe. And, finally, it is certain that land cultivated under the European system, which is *cheap, as compared with ours*, becomes better the longer it is cultivated.

H.

VENTILATED BRICKS.—They are manufacturing a new kind of brick in the town of Danville, Conn. The brick are three or four times the size of the ordinary brick, and are made of sifted gravel and lime mixed to a certain consistency, and then pressed by a simple and powerful machine, and laid in the sun to cure. They have an opening or mortice through them from top to bottom, say five inches long and one and a quarter inches wide, so that when laid the air can circulate through the whole wall.

BIG SUGAR CANE.—In our last number, we mentioned a sugar cane sent us by Mr. Verret, of Bois Mallet, measuring 6 feet high and 5 3-4 inches in circumference. We thought at the time that it was the *cane par excellence*, but on Monday, we saw, rushing into our office, the man that never was beat, Dr. Geo. Hill, with a cane which, we must acknowledge, beat Mr. Verret's easy.

Honor be to these two gentlemen, for no finer cane can be produced at this season.—*Oupclousas Courier*, August 20th.

CURING MEAT---NEW METHOD.

It is said that a process has recently been discovered and a patent secured by Messrs. Paddock and Marsh, of Cincinnati, by which meats of all kinds can be cured and rendered fit for any foreign market in ten minutes time. The process is simple and effective. As soon as the animal is killed, and before being skinned, salt is injected through the arteries, and almost immediately the whole animal is impregnated with it. Numerous experiments were tried before the object was fully accomplished; but it is believed that now the process is fully perfected, and the proprietors have entered largely into the packing business at Houston, Texas. Specimens of beef killed and cured within ten minutes, with the thermometer at 80 degrees, have been sent on and exhibited at Cincinnati, perfectly sweet, and equal to the best meat cured in the ordinary manner.

We find the following interesting communication on this subject, in a late number of the *Floridian and Journal*, of Tallahassee:

TALLAHASSEE, Aug. 4, 1859.

Messrs. Editors:—In the Charleston *Courier*, of August 2d, is a notice of a “*New Method*” of curing meat, for which a certain firm in Cincinnati have obtained a patent. However justly they may be entitled to the pecuniary benefits arising from their patent, a personal advantage which in our latitude is not commonly taken by inventors—they cannot rightly claim the distinction of priority in its discovery or practice. It is within a few months of ten years since my friend Lewis LeConte, now deceased, consulted me upon the anatomical possibility of saturating the entire animal by injecting brine through the carotid artery, and after a decided affirmative from me, put into successful practice this now called “new method.” This he continued to do from the winter of 1849-’50 to that of 1851-’52 inclusive, three successive years. Nor did the idea originate with him; for, as he told me, he had read that at an Agricultural Fair somewhere in Europe, there was exhibited a leg of mutton cured in this way, and the question was then asked, “Why not cure bacon so?”

Intending to attend the Fair of the Southern Central Agricultural Society, held at Macon, Ga., in the fall of 1852, Mr. LeConte had laid by half a dozen of his choicest hams for exhibition. He would also have made known and explained the process of curing. But, alas for his family and the community in which he lived—for he was one of the most useful and public spirited citizens of Liberty county—the week before the Fair, by a sad and terrible accident his life was suddenly terminated, and the world at large deprived of this useful information, though in his county it was almost universally known.

In April, 1851, I saw him salt three hogs by this process in about ten minutes, and immediately they were cut up and hung in the smoke-house, then heated with fire and smoke, and all were perfectly cured. I observed the thermometer the same day at 11 o’clock, A. M., and the mercury stood at 80° Fah. Thus the “method” proved successful under the severest test.

To many of my friends the above will be but a repetition of facts they have for several years past heard me relate, but to the public generally they may be interesting.

I will add that the process is by no means difficult, as you will understand when I say that Mr. LeConte’s negro did it all. Very respectfully,

G. TROUP MAXWELL.

[Will Mr. MAXWELL be kind enough to describe plainly the method of Mr. LECONTE, and oblige us, and our readers?—Eps.

NORTH ALABAMA FAIR.

THE Fair of the North Alabama Agricultural and Mechanical Association will be held in *Dekatur*, from the 19th to the 22d of October. The *Journal* says:

“The Fair ground at this place has lately been undergoing some improvements, and is now in fine order for the coming exhibition. The location of the ground is a beautiful one, commanding an extensive view of the country on every side, and we indulge the belief that all who find it to their interest or pleasure to attend the Fair, will be pleased with the arrangements.

“A great deal of interest appears to be manifested in regard to this Fair; and that it will be a most successful one, we have not a doubt. Let our farmers and mechanics go into it with a determination to make it an occasion for mutual improvement, and the result undoubtedly will prove a blessing to the entire country. North Alabama is rich in agricultural and mechanical products. On an occasion like this it is highly important that the entire resources of the country, together with the tact, energy and enterprise of her people, should be brought fully into notice. Let all, then, do their best, and we will have such a Fair as has never before been witnessed in this portion of the State. And we will show our brethren of South Alabama, that although we may not be quite so fast in railroad matters, we are not a whit behind them in the cultivation of the soil, or in all the arts that pertain to the improvement of mankind in general.” [Good!]

“NORTHERN TREE PEDDLERS,” &c.—An amateur living on the sea coast of Georgia, writes us:

It is a great disappointment to send for a soft June Peach, and after all the trouble of planting, watering, manuring, and trimming, to find the fruit a little, hard, worthless thing, as is the case this year with the trees I got from a certain Nursery at the North, which I do not now name. This has determined me never to be Yankee again, or send to the North for a fruit tree. The meanest peach on the place is better than some of those sent me from the above Nursery. Long sounding names as “Imperial Malakoff,” &c., prove to be a little, hard, worthless peach, that would make a pig grunt if it didn’t squeal.

Yours respectfully, W. H. H.

LIME IN TRANSPLANTING TREES.—An English publication says that a large plantation of trees has been formed in that country, within a few years past, without the loss of a single tree, by putting a small quantity of lime in the hole when planting the tree. Four bushels of lime are said to be sufficient for an acre. The lime is thoroughly mixed with the soil, in order that it may be reached by the roots, with equal facility in every direction as its principal effect is to push forward the tree during the first precarious stages of its growth. [Is this true?—who has tried it?]

GRINDING FEED.—“If a machine was invented to *grind* hay,” says the *London Farmer*, “the ground article would approximate in value to *unground* oats in producing fat and muscle.” *Chopping* hay and stalks is the process that comes nearest to grinding, and relieves the animal of just so much labor as it takes to do it. Twenty five pounds of dry hay a day is a good deal of work for the muscles of one pair of jaws, if they have the whole burden of its reduction to small bits and powder; this labor affects the whole system, retarding the animal’s growth and rendering more food necessary to supply the waste of its tissue.—*Country Gent.*

SOUTHERN CULTIVATOR.



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NO. 11.

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I See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—Cotton.—The picking, ginning and baling of the crop should be entirely finished by the middle of this month, in order that the planter, his negroes and animals, may have a little respite and "breathing space" before the labors of the next crop come on. There is no branch of agriculture that requires so much unremitting and continuous hard work as the making of a good Cotton crop, and the wise and humane planter should avail himself of all the leisure he can obtain, between crops, for relaxation, and the carrying on of various necessary plantation improvements, too often entirely neglected. So long as Cotton is cultivated to the almost total exclusion of everything else, we cannot hope for any high degree of rural improvement in the South; but surely, with the advantages of climate and labor which we possess, we can all do much more than we have yet done to improve our lands and beautify our homes. Let us at least make the effort; and do everything that is possible for the advancement of our highly favored region.

In the preparation of Cotton for market, it will be well to heed our previous suggestion in regard to careful ginning and handling, as the price will depend as much upon this as upon the natural quality, or length and fineness of the staple.

Sweet Potatoes.—Cut off the vines as soon as the frost nips them severely; then dig, and carefully bank or house, as soon as possible. (See directions in our last number, page 297.)

Small Grain, such as Barley, Rye, Black, Winter, and Egyptian Oats, Wheat broadcast for a field crop, and Wheat in the drill, for winter and early spring "soiling" or feeding green—all these must now be sown as soon as possible. Hardy Winter Grasses, such as Clover, Lucerne, "Stanford's Wild," the Tall Oat Grass, &c., &c., must, also, be put in the ground at once. Manure heavily, plow very deep, pulverize finely, and roll in your seed

with a heavy roller, if you wish to be remunerated for your time and labor.

Hedges of the Osage Orange, Honey Locust., Spanish Bayonet, White Macartney and Cherokee Rose, Fortune's Yellow Rose, Pomegranate, Jujube Tree, Japan Quince, "Mock Orange," Pyracantha, American Holly, Cedar, Arbor Vitæ, Euonymus Japonica, Privet, &c., &c. for defence and ornament, should be set out the present month, and during the winter. They add greatly to the beauty and value of the homestead, and the Osage Orange, Honey Locust, &c., form the surest protection to our gardens, orchards and pleasure grounds.

THE ORCHARD, GARDEN AND NURSERY—Fruit Trees, of all the choicest varieties of Southern growth, should be planted now, as soon as the ground is well moistened by the early fall rains. If you delay until spring, you will be too much hurried with other work to give this important matter the proper attention, and it may not be done at all. Prepare the soil for Vineyards, and plant your Grades; now is the best time to set them out. Remember! that all trees (except some Evergreens of the fir tribe) succeed best in the South, when planted in fall or early winter—that by planting now, you gain a year in the bearing of your Fruit trees, and that, if you will take the proper pains at first, there is little to do afterwards. Plant more trees, they "will grow while you're sleeping!"

Full directions for the transplanting and management of Fruit and Ornamental Trees were given in former numbers, and may be found in the different Nursery Catalogues of Fruit and Ornamental Trees for the South.

Sow Cabbages, Turnips, Parsnips, Carrots, Lettuce, Radishes, &c., &c. If you sowed Cabbage seed last month, and now have plants with four or five leaves, lift them carefully and plant them out two inches apart on a bed, which you can cover during severe frost. They will be the earliest and best for setting out early in the spring. Haul plenty of manure on your garden, have it well spaded, burying under all enriching animal or vegetable matter. Transplant Broccoli, Cabbages, Celery, "Collards," &c. Dress and manure your Asparagus beds, not forgetting to give them a liberal top-dressing of salt before spring—dig the manure in with a fork, which will do less injury to the roots than a spade. Save all old

bones, soap suds, dead leaves, decaying vegetables, &c., and make up into compost heaps for future use. Plow and subsoil your ground for the planting of young orchards, and provide a supply of roots and stocks for the propagation of all new and desirable varieties of Fruit adapted to our Southern climate. Recollect, that all manure should be worked in deeply, fresh stable manure in particular. Clean out all trash in the fence corners and other places; put it in heaps, well mixed with stubble manure, and have the compost ready for spring use.

All Flower bulbs, such as Hyacinths, Tulips, Amaryllis, Gladiolus, Peonies, and others, should now be planted.

THE STRAWBERRY PATCH.—See remarks in October number, on soil, planting, &c., and after the plants have become well rooted, cover the whole ground with partly decomposed leaves from the forest, or even chopped up pine or broom straw, leaving nothing exposed but the leaves and fruit-stalks of the plants.

THE RELATION OF LAND TO LABOR.

In a previous number of this journal we have presented some views on this subject, based chiefly upon the developments of the "Transactions of the New York Agricultural Society."

In the present condition of Southern Agriculture, we do not need so much an increase of labor, as a wise direction of that which we possess. For instance, if Mr. GENTRY, of Missouri, has under fence and causes to pay an annual return of eight dollars per acre, three thousand five hundred acres of land, with 18 laborers, how much land could one of our large cotton planters use? And, if land in the same proportion to labor, that is, 200 acres to the hand, were used throughout the South generally, how much of our dead capital would begin to pay an increased interest to the landholder and an increased tax to the State?

We have no idea, practically, at the South, how much land a small force can render valuable. Our land is a drug. Our labor is expensive. It is our policy to use as much as possible of the former and as little as possible of the latter. Yet our system precisely inverts this order—we use much labor and little land. We use less land to the hand than where land is worth 200 to 500 dollars an acre.

The State Agricultural Society of New York annually appoints a committee to examine and report upon the farms which are offered in contest for the premiums. Besides the report of the Committee, the statements of the proprietors are made under oath and with minuteness. We have previously made some extracts from former volumes of the Transactions, showing the amount of labor bestowed upon the farms in competition, together with the gross results of sales.

We propose to continue these extracts from the admirable and most instructive volume recently sent us. We defy an intelligent planter to read them without finding some new and unaccustomed thoughts passing through his mind:

CHEESE DAIRY FARMS.

J. S. JACKSON's farm. 165 acres—40 acres woodland—3 acres in roads. Gross sales, \$5,567.56. Labor, \$712. This includes the farmer's own labor, his family labor and hired help with their board. The number of acres worked with the plow is but fifteen. Among other items of product are 117 tons of hay at \$9 per ton—\$1,053.00. This would be worth, any where in Georgia near a town on line of Railroad at \$20 per ton—\$2,390. Cheese 10,331 pounds at 7 1-2 cts—\$774.82. This value would be doubled in Georgia—certainly in the interior of the State. Butter, 1112 pounds at 22 cents—\$244.64. The stock kept upon this farm are 4 horses, 46 cattle, 27 sheep and 5 hogs. This farm took the first premium.

NORMAN GOWDY's Farm. Two hundred and fifty acres—13 acres in woods. Gross sales, \$5,055.69. Paid for labor with board, \$838. Fifty two acres in plowed crops, as wheat, &c.—70 acres in mowing land—115 acres in pasture. Sheep, "none—near a village exposed to dogs." Nine head of horses—seven hogs, average weight 250 lbs. Fifty-three head of cattle.

BUTTER DAIRY FARMS.

J. C. COLLINS' farm. One hundred and fifty acres—90 acres cleared—60 acres in woods pasture. Gross results, \$5,988.60. Labor, including the farmer and his family with hired help and board, \$626. Horses, 4—cattle, 48—sheep, 9—Hogs, 10. One hundred and fifty tons of hay at \$7 per ton—\$1,050—would be worth, in Georgia, \$3000. Four thousand five hundred pounds of butter at 21 1-2 cents—\$967.50.

GRAZING FARMS.

L. D. CLIFT's farm. One hundred and sixty acres. Of this farm the Committee say: "This farm is situated upon a tract originally exceedingly rugged. During the 44 years since Mr. Cleift came upon it, he has devoted himself entirely to its amelioration; and has, at an immense expenditure of labor (mostly that of his own hands) succeeded, in a very commendable degree, in overcoming the obstacles with which he had to contend." Twenty-eight acres are under the plow—eight in wood, and the remainder in meadow and pasture. Gross results, \$8,355.75. Paid for labor, \$500. Two horses. Sold 68 head of fat cattle.

GRAIN FARMS UNDER FIFTY ACRES.

SOLOMON WALRATH's farm. Thirty-five acres. Gross results, \$1,032.88. Cost of farm labor not specified. Stock cattle, 15—horses, 2. Sold 1,100 pounds of butter from seven cows.

GRAIN FARMS OVFR FIFTY ACRES.

LEWIS SHERILL's farm. One hundred and eighty acres of rolling land. Gross results, \$3,921. Worked by the farmer himself. Five cows, 42 head of cattle, 12 hogs, 1250 pounds butter and 1000 pounds of cheese from 10 cows. Corn, 50 bushels per acre—wheat, 25—oats, 40—barley, 20 bushels. This farm was originally so infested with stones that it is entirely fenced with stone walls, taken from the land and divided into fields of from 8 to 18 acres.

These statements are extraordinary. In view of our

agricultural results they seem to be almost incredible. Yet they are verified, independantly of the sworn statement before a justice of the parties themselves, by a Committee of the Society, the Chairman of which is B. P. JOHNSON, than whom there is not higher agricultural authority in this country.

It worthy of remark that there is not a single farm product, with the exception of wheat, which is estimated at a higher price than that which we are accustomed to obtain. The item which makes up the largest single amount (hay) is put down at less than half its ordinary price with us.

Neither is the yield per acre greater in any one product than we are accustomed to obtain under similar treatment. Nor is there any one product which we are not accustomed to grow.

We are struck with the amount of stock kept upon the farm in proportion to the number of acres. Take, for instance, the last mentioned farm, of 180 acres of rolling land. Five horses and forty-two head of cattle, and such cattle that from ten of the cows 1250 pounds of butter and 1000 pounds of cheese were made in one year. This amount of stock enables the farmer, Mr. SHERRILL, to manure all the land he cultivates with forty loads of manure to the acre. The accumulation of such a farmer is two-fold. His interest is compound. He makes money by the sale of his stock or their produce, and he makes money through the annual increase of his capital in the improvement of his land by means of his stock.

The proportion of land plowed for corn, wheat, &c., is very different from that which exists on a Southern plantation. No. 1. Fifteen acres plowed out of 165 acres. No. 2. Fifty out 150. No. 3. Eighteen out of 150. No. 4. Twenty-eight out of 160. No. 6. Sixty-five out of 180 acres. All the rest of the land, besides the tillage ground, yields an annual income without labor, except during the hay harvest. When we consider the small proportion of plowed land, our wonder at the low estimate for labor ceases. But our astonishment at the greatness of the gross results does not cease.

Under our present system at the South, if a young man has inherited a tract of land without negroes, he does not dream of becoming a farmer. He does not ask, what is done by the rest of the world who have no negroes? He thinks it absolutely necessary that he should carry the "green bag," or compound pills, or handle the yard-stick; and, in view of our present practice, he is right. It is impossible, unless in exceptional cases, to hire hands at the present rate of wages to cultivate cotton and corn, according to our usual methods, without loss. But if he has the means to hire help to lay down a good portion of his land in pasture and meadow, so that after the first cost, annual cost comparatively ceases, he may then hire hands to cultivate a small portion in cotton and grain; and, pursuing the system indicated in the instance before us, he will soon begin to accumulate. This is what thousands have done in the inhospitable climate of the North. Much more can it be done in the genial climate

of the South. It will be but a little time before he will cease to hire and will own his own negroes.

Our chief purpose in citing the above instances is to induce thought on the part of our planters. We wish them to study the anomalies of our agricultural position. We heard, a short time since, of one man offering to give another a plantation, if he would work it and allow him the first crop, and the offer was refused. We heard of another buying a plantation at one, two and three year's credit. It was paid for by a draft on the factor, the amount of which was realized from the first crop—one crop selling for more than the purchase money of the land. Surely there must be something radically wrong in such a condition of affairs. We can account for it only by recalling the great cost of labor in the production of what is called a full crop, either of cotton or corn.

If a planter owns 1000 acres of land, 200 of which is in woods and the rest under cultivation in cotton, corn and small grain, it will require a gang of at least fifty negroes to cultivate it, worth, say, \$25,000. His land may be worth, say, \$5,000, which is more than the average price of land at the South. The labor, in this instance, is worth five times the cost of the land.

Suppose he were to modify his system, and instead of 800 acres under cultivation, he should reduce the amount to 500 acres, and place the whole of the rest, whether woodland or cleared land, in meadow or pasture. At the same rate of labor as in the first instance, he would reduce the cost of labor to the amount of \$10,000. He would still be employing a much larger amount of labor than was employed in the farms we have been considering, and would be cultivating more land in plowed crops.

In these Premium farms the gross returns per acre are as follows:—No. 1, about \$35 per acre. No. 2, about \$20. No. 3, about \$40. No. 4, about \$52. No. 5, about \$30. No. 6, about \$20. If we put these farms at an average of gross results of \$30 per acre, and if a Southern farm of 1000 acres, with 15 hands, under the same general system, substituting cotton for some one of their crops, should yield the same results, the gross income would amount to \$30,000.

There are probably Southern plantations of 1000 acres, rich and fresh, which produce an equal gross result. But with what an investment in labor? and at what cost to the land? It is the beauty of the system developed by the New York Society, that while these large annual returns are exhibited, there is an annual and rapid improvement of the soil.

We see nothing to prevent such a modification of our system of Agriculture as will enable us more perfectly to accomplish these results than is possible at the North. We can raise the amount of stock necessary to keep our lands in a constant state of improvement at much less cost than is practicable there. Climate gives us this advantage. It is expensive to provide food for and feed animals which are housed six months of the year. As an illustration of this point, it may not be unbecoming to mention that we have now a lot of young grade Ayrshire cattle 18 months old, perfectly fat and now sold at \$25

per head, which have never received one mouthful of food except that which they had obtained winter as well as summer by grazing. The same thing is true of between 150 and 200 Merino sheep.

It is much to be desired that we should adopt a different method of estimating our income. It is a fallacy to estimate it at so much per hand—it should be at so much per acre, *counting all our acres*, whether cleared or uncleared, for it is all a part of our investment. By making the estimate in this way, the planter will see what he is doing with his capital. We should not own a foot of land which is not paying us something every year. It is bad management wherever this is the case. He who locks up his capital in useless old fields or profitless woodland, is but an enlarged and masculine instance of the same financial ability which prompts the ancient dame to hoard her earnings in the well-tied stocking. Both have the gratifying and intelligent assurance that, if the money pays no interest, it is, at all events, securely their own and not the property of another.

H.

ENGLISH PREMIUMS TO GEORGIA INDUSTRY.

It is but little more than a century since the "Society for the encouragement of Arts, Manufactures and Commerce" was established in England. Among the arts, agriculture was at the period of the organization of this Society, in a languishing condition. The soil of England was much exhausted. The culture of turnips for stock was but little understood. Meat for the butcher was fattened upon grain. The necessity of this expensive fattening food diminished the number of live stock raised, and, of course, the quantity of manure. There was, then, no separation of grass seeds. No division into summer and winter pastures. The implements of agriculture were imperfect and the results of agriculture, therefore, limited.

Under these circumstances, a company of noble hearted Englishmen met together, and, after careful study as to the deficiency of English agriculture, determined to attempt the supply of these deficiencies, by offering the most liberal Premiums to those who should exhibit excellence in these particulars in which the deficiency was most apparent.

We have before us Dossie's Memoirs of the Society thus formed. This interesting work was published in London in 1757. By it, it appears that the Society from 1756 to 1766, ten years, expended more than \$150,000 in premiums, in the various branches of industry.

It is from the origin of this Society, that British agriculture received its grand impulse. The study of deficiencies suggested appropriate remedies. The liberal character of the premiums warranted the risk of attempting new industries. Under the strong stimulus of the competition thus generated, new arts were introduced into the kingdom and imperfect methods were perfected. New plants were domesticated and defective culture of known crops was improved. The whole economic interests of the realm felt the salutary influence. It is thus that old England was rejuvenated, and her lusty age now shows the wisdom of years with the vigor of youth.

Among the ends contemplated by this Society, it was desired to render the mother country independent of foreign nations by fostering in the Colonies the pursuit of those branches of industry which climate or other causes rendered impracticable at home.

A statement of the Premiums, paid in Georgia, while she was a colony, may be of interest to our readers:

1755. Mulberry Trees, for raising in Georgia, £18.
1759. Silk Cocoons, for producing in Georgia, £87 15s. 11d., to candidates.

1760. Silk, for producing in Georgia, £136 2s. 9d.
1761. Silk Cocoons, for producing in Georgia, £100 13s. 9d.

Silk Cocoons, Inferior, £65 14s 8d.

Myrtle Wax, for importing greatest quantity, Mr. Perroneau, £30.

1762. Myrtle Wax, for importing the greatest quantity, Mr. Anthony Bacon, £30.

1763. Silk Cocoons of the best kind, for producing in Georgia, £188 15s. 4d., to various candidates. Doitto, an inferior kind, £193 7s. 10d.

1764. Silk Cocoons, for producing in Georgia, £190 1s. 1d., to various candidates.

1766. Silk Cocoons for producing in Georgia, £155 12s. 11d., to various candidates.

For his useful observations in China and industrious application of them in Georgia, Mr. Sam. Bowen, of Georgia, a gold medal.

Silk Cocoons, for producing in Georgia, £254 12s. 6d., to various candidates.

During the space of seven years, nearly \$8,000 was expended by these English gentlemen as premiums on the article of silk alone in Georgia. It should be remembered that the whole of this generous expenditure was from private purses and without aid from the government.

The following were the chief subjects of Premiums in Agriculture at home:—various kinds of trees, madder, hemp, carrots, improved agricultural tools, turnips, and the different grains. But by far the largest amount of premiums was bestowed upon the cultivation of the different grasses. Among these, the most earnest efforts were made to introduce two herbage plants of the warmer countries of Europe—Burnet and Lucerne. Besides gold medals, we observe that upwards of \$1000 was expended in premiums in four years for the introduction of these two plants into British husbandry.

The effect of these premiums upon English Agriculture was very salutary. But it was hurtful to the colonies, not intentionally, but necessarily. The Colonists were induced to devote themselves to raising articles for export before they were prepared to furnish their own necessary supplies. This immense stimulus of colonial industry in certain directions, we believe, offers a *key to the defective agriculture of the South*. In Georgia, the colonists exported silk and imported domestic animals and provisions. The same was true of Virginia in regard to tobacco. After silk, followed indigo, then cotton.

No country is really prosperous which imports its provisions. No planter is prosperous to the extent within his reach, who buys his bread and meat and working animals. The prosperity is apparent rather than real. It is obtaining a handsome income from a constantly diminishing capital. Under this system, thus early inaugu-

ated, multitudes have made large fortunes at the South. But at what a cost? Let the worn out fields of the older parts of the South answer.

The agricultural histories of the Northern colonies differed materially from that of the Southern. The unfriendliness of their climate allowed no exhausting article of export. The industry of the colonists was devoted to pursuits which, while they were reasonably remunerative, did not, by comparison, exhaust the soil. A large portion of the produce of the soil was returned to it after having passed through the bowels of domestic animals. Mark the result. An acre of naturally thin land, infested with rocks, in the severe climate of Massachusetts may now sell for \$200, while an acre of better land, under the genial sky of Georgia, may be bought for \$5.

When used and not abused, the cotton plant is the most valuable plant, perhaps, which a kind Providence has bestowed upon man. But its cultivation should be subordinated to the higher end of the improvement of the soil. Otherwise, we shall but continue the agricultural disasters of our Colonial history.

While the influence of the Society, whose premiums we have considered, was hurtful to the Southern colonies, we have referred to the fact of its salutary influence at home.

We cannot strictly imitate this example. Our private fortunes are too small to incur the necessary expense of these costly premiums to adventurous industry. But we have a public fortune. We have a "public purse." We close this article by quoting from the September number of this journal, the language of Gen. WASHINGTON: "In proportion as nations advance in population and other circumstances of maturity, this truth becomes more apparent and renders the cultivation of the soil more an object of public patronage. Institutions for promoting it (Agriculture) grow up, supported by the public purse; and to what object can it be dedicated with greater propriety?"

H.

"NIGHT SOIL"---"ORDURE"---"POUDRETTE."

In accordance with the desire of our esteemed correspondent, Col. J. T., of Hancock county, Ga, we give the following article from the works of LIEBIG:

Night-Soil.—In respect to the quantity of nitrogen contained in excrements, 100 parts of the urine of a healthy man are equal to 1300 parts of the fresh dung of a horse, according to the analyses of Macaire and Marcket, and to 600 parts of those of a cow. Hence it is evident that it would be of much importance to agriculture if none of the human urine were lost. The powerful effects of urine as a manure are well known in Flanders,* but they are considered invaluable by the Chinese, who are the oldest agricultural people we know. Indeed so much value is attached to the influence of human excrements by these people, that laws of the State forbid that any of them should be thrown away, and reservoirs are placed in every

house, in which they are collected with the greatest care. No other kind of manure is used for their corn fields.[†]

China is the birth-place of the experimental art; the incessant striving after experiments has conducted the Chinese a thousand years since to discoveries, which have been the envy and admiration of Europeans for centuries, especially in regard to dyeing and painting, and

[†]Davis, in his History of China, states that every substance convertible into manure is diligently husbanded. "The cakes that remain after the expression of their vegetable oils; horns and hoofs reduced to powder together with soot and ashes, and the contents of common sewers, are much used. The plaster of old kitchens, which, in China, have no chimneys, but an opening at the top, is much valued; so that they will sometimes put a new plaster on a kitchen for the sake of the old." The ammonia contained in the fuel forms nitrate of lime with the lime in the mortar. "All sorts of hair are used as a manure, and barbers' shavings are carefully appropriated to that purpose. The annual produce must be considerable in a country where some hundred millions of heads are kept constantly shaved. Dung of all animals, but more especially night-soil, is esteemed above all others. Being sometimes formed into cakes, it is dried in the sun, and in this state becomes an object of sale to farmers, who dilute it previous to use. They construct large cisterns or pits, lined with lime plaster, as well as earthen tubs, sunk into the ground, with straw over them to prevent evaporation, in which all kinds of vegetables and animal refuse are collected. These being diluted with a sufficient quantity of liquid, are left to undergo the putrefactive fermentation, and then applied to the land. In the case of every thing except rice, the Chinese seem to manure the plant itself rather than the soil, supplying it copiously with their liquid preparation."

"The Chinese husbandman," observes Sir G. Staunton, (Embassy, vol. ii,) "always steeps the seed he intends to sow in liquid manure, until they swell, and germination begins to appear, which experience has taught him will have the effect of hastening the growth of plants, as well as of defending them against the insects hidden in the ground in which the seeds are sown. To the roots of plants and fruit-trees, the Chinese farmer applies liquid manure likewise."

Lastly, we extract the following from a communication to Professor Webster, of Harvard College, United States: "Human urine is, if possible, more husbanded by the Chinese than night soil for manure; every farm, or patch of land for cultivation, has a tank, where all substances convertible into manure are carefully deposited, the whole made liquid by adding urine in the proportion required, and invariably applied in that state." This is exactly the process followed in the Netherlands. See "Outlines of Flemish Husbandry," page 22.

"The business of collecting urine and nightsoil employs an immense number of persons, who deposit tubs in every house in the cities for the reception of the inmates, which vessels are removed daily, with as much care as our farmers remove their honey from the hives."

When we consider the immense value of night soil as a manure, it is quite astounding that so little attention is paid to preserve it. The quantity is immense which is carried down by the drains in London to the River Thames, serving no other purpose than to pollute its waters. It has been shown, by a very simple calculation, that the value of the manure thus lost amounts annually to several millions of pounds sterling. A substance, which, by its putrefaction, generates miasmata, may, by artificial means, be rendered totally inoffensive, inodorous, and transportable, and yet prejudice prevents these means being resorted to.—LIEBIG.

*See the article "On the Agriculture of the Netherlands," Journ. Royal Agri. Soc., vol. ii, part 1, page 43, for much interesting information on this subject.

to the manufactures of porcelain, silk, and colors for painters. These we were long unable to imitate, and yet they were discovered by them without the assistance of scientific principles; for in the books of the Chinese we find recipes and directions for use, but never explanations of processes.

Half a century sufficed to Europeans not only to equal, but to surpass the Chinese in the arts and manufactures, and this was owing merely to the application of correct principles deduced from the study of chemistry. But how infinitely inferior is the agriculture of Europe to that of China! The Chinese are the most admirable gardeners and trainers of plants, for each of which they understand how to prepare and apply the best adapted manure. The agriculture of their country is the most perfect in the world; and there, where the climate in the most fertile districts differs little from the European, very little value is attached to the excrement of animals. With us, thick books are written, but no experiments instituted; the quantity of manure consumed by this and that plant is expressed in hundredth parts, and yet we know not what manure is!

If we admit that the liquid and solid excrements of man amounts, on an average, to 1 1-2 pounds daily, (5-4 pounds of urine and 1-4 pound feces,) and that both taken together contain 3 per cent. of nitrogen, then in one year they will amount to 547 pounds, which contain 16.41 pounds of nitrogen, a quantity sufficient to yield the nitrogen of 800 pounds of wheat, rye, oats, or of 900 pounds of barley. (Boussingault.)

This is much more than is necessary to add to an acre of land in order to obtain, with the assistance of the nitrogen absorbed from the atmosphere, the richest possible crop every year. Every town and farm might thus supply itself with the manure, which, besides containing the most nitrogen, contains, also, the most phosphates: and, if rotation of crops were adopted, they would be most abundant. By using, at the same time, bones and the lixiviated ashes of wood, the excrements of animals might be completely dispensed with.

When human excrements are treated in a proper manner, so as to remove the moisture which they contain without permitting the escape of ammonia, they may be put into such a form as will allow them to be transported even to great distances.

This is already attempted in many towns, and the preparation of night-soil for transportation constitutes not an unimportant branch of industry. But the manner in which this is done is the most injudicious which could be conceived. In Paris, for example, the excrements are preserved in the houses, in open casks, from which they are collected and placed in deep pits at Montfacon, but are not sold until they have attained a certain degree of dryness by evaporation in the air. But whilst lying in the receptacles appropriated for them in the houses, the greatest part of their urea is converted into carbonate of ammonia; lactate and phosphate of ammonia are also formed and the vegetable matters contained in them putrefy; all their sulphates are decomposed, whilst their sulphur forms sulphuretted hydrogen and hydro-sulphate of ammonia. The mass, when dried by exposure to the air, has lost more than half of the nitrogen which the excrements originally contained; for the ammonia escapes into the atmosphere along with the water which evaporates; and the residue now consists principally of phosphate of lime, with phosphate and lactate of ammonia, and small quantities of urate of magnesia and fatty matter. Nevertheless, it is still a very powerful manure, but its value as such would be twice or four times as great, if the excrements, before being dried, were neutralised with a cheap mineral acid.

In other manufactories of manure the night-soil, whilst

still soft, is mixed with the ashes of wood, or with earth, both of which substances contain a large quantity of caustic lime, by means of which a complete expulsion of all its ammonia is effected, and it is completely deprived of smell. But such a residue applied as manure can act only by the phosphates which it still contains, for all the ammoniacal salts have been decomposed and their ammonia expelled.

The preparation of night-soil is now carried on in London to a considerable extent. Owing to the variable nature of the climate, artificial means are employed in its desiccation. The night-soil, after being subjected to one or the other of the modes of treatment described below, is placed upon iron plates heated by means of furnaces.

As soon as the night soil is collected, it is placed in large, broad trenches, until a sufficient quantity is accumulated for the purposes of the manufacturer. But here it undergoes the same process of putrefaction to which allusion has been made, and acquires a peculiarly offensive smell from the evolution of sulphuretted hydrogen and other gases, which are observed to escape. Unless some means be employed, at this stage of the process, to retain the ammonia, it escapes into the atmosphere in the form of a carbonate. Various methods have been proposed to effect this purpose. Some manufacturers mix the night soil with chloride of lime, and evaporate off the water by the aid of heat. This possesses the advantage of depriving the excrements of smell, and at the same time partially fixes the ammonia which would otherwise escape. Chloride of lime always contains a considerable excess of lime; hence part of the ammonia contained in the night soil is expelled by means of it.

More simple and economical methods might be employed. A patent, which has been taken out for the preparation of this useful manure, states, in its specification, that the night soil is to be mixed with calcined mud and finely-divided charcoal. By this means, the smell is completely and instantaneously removed, and the ammonia retained by virtue of the affinity which alumina and charcoal exert for that compound. This plan is both simple and efficacious, but the ammonia is apt to be expelled by the application of the heat employed in drying the manure. The addition of a cheap mineral acid to the night soil, before admixture with these ingredients, would materially improve both of the above processes.

It would, no doubt, be highly advantageous in the preparation of manures, to prepare them so that they contained all the ingredients necessary for the supply of the plants to which they are applied. But these will, of course, vary according to the nature of the soils and plants for which they are intended. Thus bones, soap-boilers' waste, nitrate of soda, and ashes of wood, will often be found to form advantageous additions. Sulphate of magnesia (Epsom salts) would, in most cases, form an invaluable ingredient in prepared night soil. (See Supplementary Chapter on Soils.) The products of the decomposition proceeding from the action of this salt upon night soil are, sulphate of ammonia, phosphate of magnesia, and the double phosphate of magnesia and ammonia. Now all these salts exert a very favorable influence upon vegetation, and the phosphate of magnesia, in many cases, perfectly indispensable to the growth and development of certain plants. This suggestion is well worthy of the attention of the farmer.

Perhaps the best and most practical method of fixing the ammoniacal acids of urine and night soil, is to mix them with the ashes of peat and coal. When the latter are employed, care must be taken to select such as are of a porous, earthy consistence. The ashes of peat and coal contain, in general, magnesia, hence, their value as an ingredient of prepared night soil. When magnesia is not present it will be necessary to add some magesian lime-

stone or Epsom salts. The night soil should be mixed thoroughly with the ashes, and exposed to the air to dry. The disagreeable smell is thus quickly removed, and a pulverulent manure obtained, which can be applied to the fields with facility.

Animal charcoal, which has served for the discoloration of sugar, possesses the property of removing the offensive smell of night soil, and is, of itself, an admirable manure. In cases where it can be procured with facility, it will be found to add to the efficacy of the latter.

"STATE AID" TO AGRICULTURE--LETTER
from Hon. B. P. Johnson, Secretary of the
New York State Agricultural
Society.

We commend the following documents to the careful perusal of our legislators, and all who desire the advancement of our Agricultural interests:

NEW YORK STATE AGRICULTURAL ROOMS,
Albany, August 20th, 1859.

EDITORS SOUTHERN CULTIVATOR—In answer to your inquiry, in relation to the aid which has been given to Agriculture by the Legislature of our State, my engagements will not allow me to give as full account as I should desire, and in my statements I shall confine myself to a period commencing soon after the present State Agricultural Society was formed, in 1832. As early as 1797 and again in 1819, provisions were made by Legislative enactments and monies appropriated for the encouragement of agriculture and domestic manufactures.

In 1832, the State Agricultural Society, as it now exists, was incorporated by the Legislature; and in 1841 an Act for the Encouragement of Agriculture was passed (a copy of which is annexed), appropriating \$8,000 to be distributed annually to the State and County Agricultural Societies, upon the conditions named in the Act. This appropriation has been continued to the present time, and has resulted in very great good to the agricultural and other interests of the State, and has enabled the various associations in the State to carry on their operations successfully. It will be seen, by reference to the law, that each Society is required to raise, annually, a sum equal to that appropriated by the State, as a condition upon which the money is appropriated; and, annually, to make returns—showing that the provisions of the law have been complied with. The main provision, as to premiums, is of much importance—that the person claiming the same, or to whom the same may be awarded, shall deliver, in writing, to the President of the Society, as accurate a description of the process in preparing the soil, (including the quantity and quality of manure applied) and in raising the crop or feeding the animal, as may be; and, also, of the expence and product of the crop, or of increase in value of the animal, with the view of showing, accurately, the profit of cultivating the crop, or feeding or fattening the animal.

The object of this requirement was to secure the expenditure of the monies upon legitimate objects connected with agriculture, and has tended to a fair and just appropriation of the funds of the Societies generally.

The basis upon which the sum appropriated, after an allowance of the State Agricultural Society, was based upon the population of the State. This law, also, contained a simple provision for the organization of County Agricultural Societies.

In 1855, a law was passed authorizing the formation of County, Union and Town Agricultural and Horticultural Societies, enabling them to hold real estate and giving them such privileges as were found desirable, not provided for in the original law. I send you a copy of this law.

Under these laws we have now in operation 54 County, and 56 Town and Union Societies which have made reports to the State Society. There are several other Town Societies which have not availed themselves of the provisions by reporting their organization.

The Legislature publishes, annually, the reports of the State Society and abstracts of the reports of the County Societies, and furnishes from 750 to 1000 copies to the State Society, from 40 to 50 volumes to each County Society and 20 volumes to each Town and Union Society which have made reports, and a very large number, in addition, to members of the Legislative officers of the State Government. Eighteen volumes of these reports have already been published, and that they have been eminently useful in advancing the agriculture of the State and of developing its resources and adding largely to its wealth, I believe is now universally admitted. The value of these works in our own country and in Europe have been frequently acknowledged in the most gratifying manner.

In addition to what I have referred to, the Legislature appropriated \$40,000 for the erection of the Agricultural and Geological buildings, one half of which is solely devoted to the State Agricultural Society—giving the Society spacious rooms for the Executive Committee and for the Library, a Lecture Room, rooms for a Laboratory and rooms, occupying three floors, for an Agricultural Museum, where implements, machinery, grain and specimens of grasses, &c., are appropriately arranged. The arrangements of the building, in addition to the \$40,000 for the erection, probably cost \$15,000. The building is warmed by furnaces, lighted with gas, and has attendants to keep it in order—provided by the State at an expense of about \$2,000 a year.

To show the appreciation which the people give to the collections which are comprised in the two departments, which are open on week days, from 9 A. M. to 6 P. M., through the year (except on public and holidays.) In one year, while a register was kept, in which visitors, who choose, entered their names, upwards of 40,000 were recorded, and probably not much over two-thirds of the visitors availed themselves of the register of their names.

The Agricultural Museum has proved of very great advantage. Farmers can here examine the old as well as the modern implements; here can be seen the products of the State and from foreign countries brought together; and, as every desired information is given to inquirers as far as the means exist for so doing, it will be seen that here is a great practical institution for giving information to all who choose to avail themselves of the opportunity.

The Legislature has appropriated \$1,000 a year for the prosecution of an investigation as to the insects of the State, especially as to those injurious to the farmers. Five annual reports have been published, containing an amount of valuable facts, the importance of which cannot be appreciated in a money point of view.

I have not alluded to the Geological Survey of our State which was embraced an agricultural department.—Eighteen volumes, with a geological map, have been published—2 on Botany, 4 on Zoology, 1 on Mineralogy, 3 on Geology, 5 on Agriculture and 3 on Paleontology—at an expense, probably, of \$100,000, all of the volumes having been illustrated with steel plates, lithographs or wood cuts.

I send you copies of the laws passed in relation to the organization of the agricultural societies, and forms adopted by our public officers to secure the returns and necessary evidence as to the expenditure of the monies appropriated by the State.

I regret that the time at my disposal will not permit a more complete account of the early appropriations to Agriculture. If what is here given shall, in any way, aid

in advancing the cause of agricultural improvement in your State I shall be gratified. And allow me to add, that I shall ever be ready, as far as my engagements will permit, to give you any information desired, as far as I may be enabled to do so.

I am respectfully yours,

B. P. JOHNSON.

—
October 9, 1841.

AN ACT FOR THE ENCOURAGEMENT OF AGRICULTURE.

[Passed May 5, 1841.]

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

§ 1. The sum of eight thousand dollars per annum shall be, and hereby is, appropriated for the term of five years, for the promotion of Agriculture and Household Manufactures in this State, in the manner following, to wit: to the county of Albany \$205 &c.,

§ 2. When the New York State Agricultural Society, and any county agricultural society now formed, or which may hereafter be formed in this State, or the American Institute, in the city of New York, shall raise, by voluntary subscription, any sum of money, the President and Treasurer shall make and subscribe an affidavit of the facts of the formation of such society, and of their having raised a certain sum, specifying the amount thereof, which affidavit shall be filed with the Comptroller of this State, who shall draw his warrant on the Treasurer for a sum equal to the amount of such voluntary subscription, not however, exceeding the amount to which such county or said State society would be entitled, according to the apportionment aforesaid.

§ 3. The New York State Agricultural Society and the several county agricultural societies now formed, or which shall be formed in this State during the continuance of this Act, shall annually elect such and so many officers as they shall deem proper; and it shall be the duty of such officers annually to regulate and award premiums on such articles, productions and improvements as they may deem best calculated to promote the agricultural and household manufacturing interests of this State, having especial reference to the net profits which accrue, or are likely to accrue from the mode of raising the crop or stock, or fabrication of the article thus offered, with the intention that the reward shall be given for the most economical or profitable mode of competition; provided, always, that before any premiums shall be delivered, the person claiming the same, or to whom the same may be awarded, shall deliver, in writing, to the President of the society, as accurate a description of the process in preparing the soil, including the quantity and quality of manure applied, and in raising the crop, or feeding the animal, with the view of showing, accurately, the profit of cultivating the crop, or feeding or fattening the animal.

§ 4. The President of the State Agricultural Society and the several Presidents of the said county societies, who shall receive or expend any of the monies hereby appropriated, shall, annually, in the month of December, transmit to the Comptroller a detailed account of the expenditure of all the money which shall come into their hands under this act, and stating to whom and for what purpose paid, with the vouchers thereof; and the said Presidents of the several county agricultural societies, shall annually transmit, in the month of December, to the Executive Committee of the New York State Agricultural Society, all such reports or returns as they are required to demand and receive from applicants for premiums, together with an abstract of their proceeding during the year.

§ 5. The Executive Committee of the New York State

Agricultural Society shall examine all reports and returns made by the Presidents of the county agricultural societies, and condense, arrange and report the same, together with a statement of their own proceedings, to the Secretary of State, in the month of January of each year.

§ 6. The Presidents of the several county societies, or delegates to be chosen by them annually for the purpose, shall be ex-officio members of the New York State Agricultural Society.

§ 7. It shall be the duty of the county Clerks in the several counties of this State, to cause notice to be given in one or more newspapers in each county of the time and place of a meeting to be held in such county for the purpose of organizing such county agricultural society; and notice thereof shall be given at least four weeks previous to such meeting.

§ 8. This Act shall take effect immediately.

STATE OF NEW YORK, }
Secretary's Office. }

This Act having been approved and signed by the Governor on the 5th day of May, 1841, I do hereby certify that the same became a law on that day.

JOHN C. SPENCER, Secretary of State.

[The remaining Acts, Forms of Application, &c., will appear in our next..]

RENOVATING EXHAUSTED LANDS.

EDITORS SOUTHERN CULTIVATOR—A correspondent in the August number of your very valuable journal, proposes a plan for renovating exhausted land and keeping up the fertility of those freshly cleared, by turning under, with the plow, pea vines before vegetation is checked by frost. His plan may be a very good one and, doubtless, it is far better than to use no fertilizer at all.

Permit me to suggest a plan which I think he will be better pleased with than the one he proposes, if he will try it. It is this: Some time in April or the first of May, bed up the land with a turning plow, leaving the beds thus prepared from three to four feet apart, according to the strength of the land. I specify the distance, not that it would matter as regards peas, but that it will leave the lands in a more convenient or better condition to be prepared for the next crop of cotton or corn. After the land is thus prepared by the plow, open the bed with a scooter and drop the peas, ten or fifteen together, along the furrow about ten inches apart, covering the same either with the foot or hoe, as may be preferred. Once plowing and hoeing will be all the cultivation they will require.

The above is intended for broken or hilly lands—where it is presumed the land is horizontalized and hill-side ditches. On level lands it will, perhaps, be better to sow the peas broadcast, as it will save after-cultivation, which is no trifling consideration.

If you want to reap the full benefit from the pea vines as a fertilizer, all stock should be kept off and the vines allowed to stand on the ground until winter, when you are ready to commence your preparations for the next year's crop. The dead vines can then be readily turned under with the plow.

My reason for suggesting the above plan is, that the land is so thoroughly protected, by the dense growth of vines, from the scorching effect of a Southern sun through the months of August and September; whereas, the plan proposed by your correspondent, of turning everything under and leaving the surface exposed, must, necessarily, injure the land more or less.

G.
Leon County, Fla., August, 1859.

 The loss of cotton by fire, chiefly at sea, during the past year, amounted to \$829,765.

HOG CHOLERA---A MISNOMER.

EDITORS SOUTHERN CULTIVATOR—If it does not violate the intention of the *Southern Cultivator*, I beg to offer the results of some personal observations upon a malady which has recently made sad havoc among the hogs of this neighborhood, and throughout many portions of the State.

I do this with the hope of eliciting, on the part of those most capable, a more careful and extensive investigation into the true cause, the nature and treatment of this disease, which, I think, is improperly called cholera. This name having suggested to the public a wrong pathology, has gotten up wrong plans of treatment, or rather remedies, without number, have been suggested, that are totally ineffectual in arresting or relieving the disease. My experience with the cases I have seen in my neighborhood and upon my plantation, (and I had any number of subjects, having lost a hundred head in a month) has convinced me that nothing that has been recommended as yet can be relied upon as a remedy, and much that is done only aggravates and hastens on the more fatal symptoms.

The disease is an exantheme, and simulates those eruptive diseases in the human, of which scarlet fever or measles are a type.

It has its febrile and eruptive stage. The cholera is but a symptom, and is not invariably present; indeed, it is very frequently absent. It is, strictly, an infectious or contagious disease and, when it attacks a stock, does not stop until material is exhausted, and all have had it.

It is thought to have originated in our county from a drove of Tennessee hogs, which were driven from an infected district in Tennessee. The first cases happened, as I understand, in that neighborhood of the county where this drove was first introduced. From the first contact with, or infection of the poison, there is a period of incubation of longer or shorter duration.

When the disease begins to develop itself the animal shows only an indisposition to move or eat; but in a very short time, is found with intense fever, breathing hurriedly, and, apparently, in great anxiety and suffering. In this stage, most cases die very suddenly. I have found them dead at pools of water in a few hours, after being perfectly well at the morning and evening calls.

They thus die, as if from the first stroke of the disease, before it is fairly developed, manifesting congestion of the brain and lungs. If the diarrhoea, with vomiting ensues, the animal frequently dies from a rapid peritonitis, or gastro-enteritis. With this symptom those that are in good condition suffer more than the "lean kine." Whilst this malady lasts, everything is affected—little and big. The "*foetus in utero*" does not escape—if not dead at birth, shows the eruption which destroys its sight and soon kills it. The power of the animal in procreating and nursing are completely destroyed, and there certainly will be no pigs as long as the disease lasts. All cases that get well desquamate, more or less. This is the distinguishing feature in the disease, and simulates it to those mentioned above; and, like them, when the eruption comes out, the aggravated symptoms cease.

In this light, you will perceive, that all, or most of the plans of treatment must prove abortive. Having a certain and undeviating course to run, the treatment can only be palliative or prophylactic. Coming on with a similar disease of our cows (which were affected last year) and making its appearance with that disease of vegetation, called rust, some have reasoned very plainly, that both were caused by this parasitic fungus, which seemed to have attacked nearly all vegetation; certainly there is some appearance of cause and effect. But how far the connection exists is yet to be determined; and whether

we are empowered with the means of preventing either or all of these destructive diseases, is to be determined by the industrious and patient inquiries of those who, for the benefit of agriculture and stock husbandry, will make them the objects of study and experiment.

W. B. J.

Birdsville, Burke County, Ga., August, 1859.

AFFECTATION.

AFFECTATION always imparts an air of insincerity to the whole character; so that we have difficulty in forming any estimate of those by whom it is exhibited. We can scarce believe one possessed of courage who is continually putting on the appearance of bravery, and recounting his exploits to all whom he meets. Hence, those who affect most are least understood; not because they are at all sparing in manifesting traits, but because the idea is conceived that these are not real—that their true characteristics are hidden.

There are some persons with whom affectation becomes a second nature. They display false colors, until they forget that they have any of their own. The natural tones of the voice are lost, the natural movements of the body are seen no more. All about the person, the beaming of the eye, the curl of the lip, the soft repose or the lively animation of the features, are such as once required an effort to assume, but are assumed no longer. The feathers of the peacock in which the daw has clothed himself, have grown, and become, as it were, his native plumage.

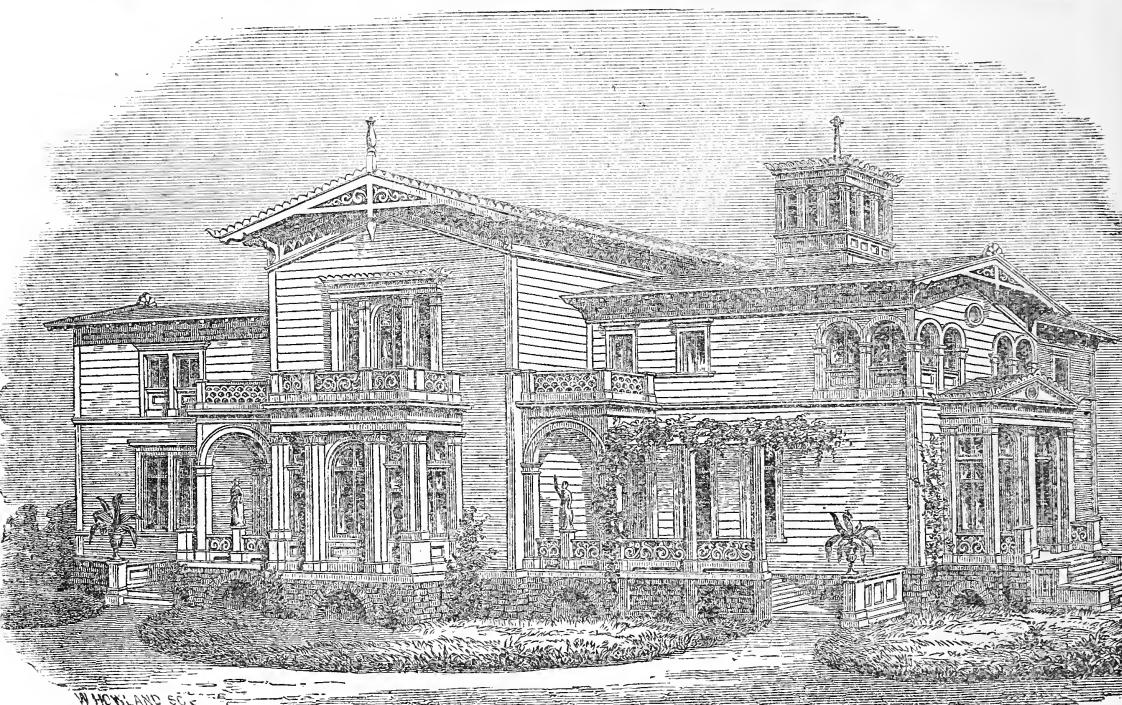
Affectation, as the term is commonly employed, is very different from that hypocrisy in which the mean man disguises his villainy. The former is merely the result of vanity, and is often seen in persons who are not bad. The young lady affects an interest in the conversation of her guests, which she is far from feeling, and the deception which she practices is not only innocent, but commendable. In this way we all are obliged to affect more or less, for the sake of politeness. Were there no affectation, this world of ours would be a disagreeable place of abode. But there is a wide difference between the art of making our friends pleased with us and with themselves, and the art of appearing to others just what we are conscious of not being. The first is the use of affectation; the last its abuse.—*Temp. Crusader.*

To KEEP (IRISH?) POTATOES FROM SPROUTING.—To keep potatoes intended for the use of the table for spring, until new potatoes grow, take boiling water, pour it into a tub, turn in as many potatoes as the water will cover, pour off the water, handle the potatoes carefully, laying up in a dry place on boards only one layer deep, and see if you do not have good potatoes the year round, without strings and water ends, caused by growing. The neighbor I got my information from says he has never failed, or had any trouble from rotting or sprouting. Try a few.—*Cor. Prairie Farmer.*

☞ The happy simile of an old divine, when cautioning the clergy against engaging in violent controversy, might be effectively applied to editorial disputants: "If we will be contending, let us contend like the olive and the vine, who shall produce the most and best fruit; not like the aspen and the elm, which shall make the most noise in the wind."

☞ Life may be merry, as well as useful—every person that owns a mouth has always a good opening for a laugh.

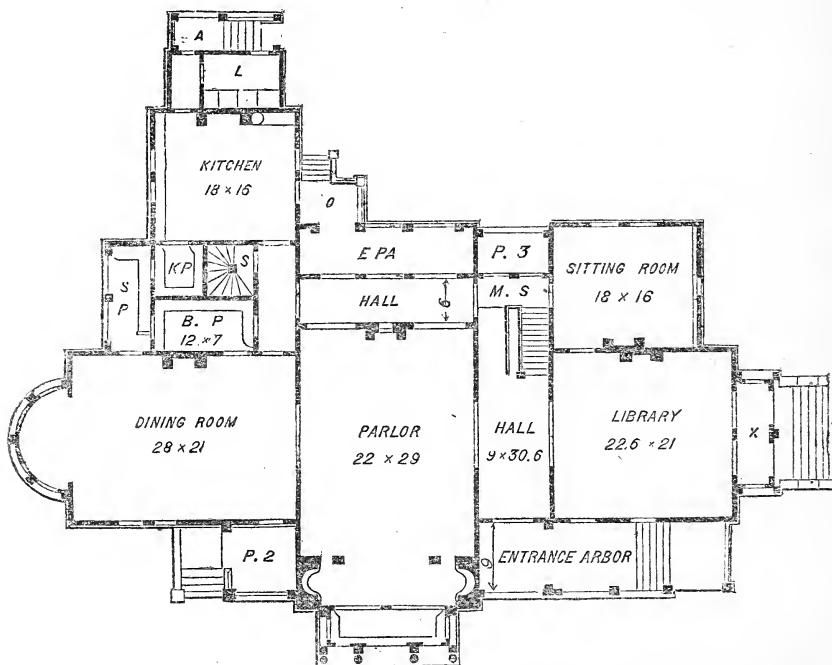
☞ "They pass best over the world," said Queen Elizabeth, "who trip over it quickly, for it is but a bog—if we stop we sink."



W. HOWLAND & CO.

THE NEW AMERICAN STYLE FOR COTTAGES AND VILLAS.

THE want of a *new style* of Architecture, properly adapted to the American climate, our comforts and requirements, has long been a source of grievous complaint. Other nations have their own styles, adapted to their requirements, and it has been a matter of considerable surprise that, inventive and ingenious as we are in other matters, there seems not, as yet, to have been any attempt towards the production of a style truly *American* in its character.



istics and suited to our necessities and tastes, and which, even though not entirely new, would still be recognized as American.

It should be borne in mind that, to conceive an entirely new style is an impossibility ; it is, therefore, only in the

adaptive genius of the architect to combine the peculiarities of other already known styles with the requirements which modern civilization renders necessary to our comfort, that we can look for any improvement in the present designs and construction of our residences.

This style has been adapted mainly from the Italian; but it is well known that the Italian style, as carried out in Italy, does not, by any means, meet our requirements. We have, as our only resort and by long years of study, devised the beautiful forms, ideas and details, derived from the Italian and adapted them with such other characteristics and modifications as were necessary to conform with our customs and wants.

The above design we have had engraved, as it fully represents the general characteristics of the style. Every interior department is represented by characteristics on the exterior; each detail has its bold relief; the construction is the most economical, and the whole effect of the execution is entirely different from the present designs that we see executed everywhere.

Let us look for a moment upon the design of our present residences. Is there not a stiffness of design, a want of harmony of the masses, a dullness of form, repetition upon repetition, heavy details and mouldings, no beauty in the arrangement of the plan, and a want of spirit in the whole design which must be felt, as we cannot describe it by word?

To design a country Villa or Cottage, suitably arranged, combining all our required comforts, taking all the advantages of the site, and in good taste, is one of the most difficult tasks for an architect to perform; and, consequently, very few good and artistic designs are to be found.

The outer forms of Villas should be selected with great care, and with the finest outlines; the same should pertain to cottages, no matter how small, (the smaller the greater care) the form of the plan combining the owner's required comforts, should be left to the architect; all the details should have their bold relief and their proper places; but, above all this, let a *spirit, a life* pervade the whole design that will bring it into the compass of art. We will now leave the design for the judgment of an appreciative public; but we wish it understood that this is only one form of plan and design.

The interior arrangement is as follows:—The main entrance is through an arbor and enclosed piazza, leading to the main hall, which opens to the parlor, library and sitting-room; the main staircase is in one end of the main hall. The parlor has a beautiful bay window on the front, with a communicating hall and enclosed piazza on the rear; the communicating hall leads to dining-room, which opens from parlor, has a circular bay window, a sitting place, marked S. P., butter pantry, with all conveniences; kitchen has pantry, laundry (L.), servants stairs (S.), and entrance (A.) By this arrangement of dining room and kitchen, &c., we separate the servant's and dining portion of the house from the other rooms—a convenience very much in favor in the middle States.

On the second floor are six bed-rooms, with closets to each; bath rooms, &c., and a separate communication to all the rooms.

The cost of this residence was six thousand dollars, complete.

In this representation of the general characteristics of the style, we have endeavored to give as distinct a picture of American life as architectural forms will allow; and, if an appreciative public accept our humble efforts, we have accomplished nothing more than our duty.

Yours respectfully,

SALTZER & VALK,

Architects, N. Y. Academy of Music,
Astor Library, &c., Office 399 4th Avenue, N. Y.

For the Southern Cultivator.

YE MOVER.

White, ye winding road-way shines,
Scantly shadowed by the pines,
Where ye mover moveth slow,
Wearily, and Westward, ho!

Ark of his, before the wind
With its jolly-boat behind—
Yaller-dog, that fares at one
With his wife and rifle-gun!

And ye line of little eyes
Graded to an easy rise,
With, by whiles, a *level*, where
Twins alleviate ye stair.

So ye mover moveth still
Up ye dale and down ye hill,
Bound with all his household band
To ye latest Promised Land.

Scarce the girdled pines are dead
On the hills he ravaged red;
Scarce the blessed sun-light blinks
Through his cabin's wasted chinks;

Ere a vision, vague and dim,
Hints a better place for him;
Better soil and brighter sun
Somewhere else, and farther on!

Where the woods supply his want—
Where 'twere "dangerous" to plant—
Where ye cattle range at will
And ye roads run, all, down hill.

Where, with scarce a tax ye State
Grows in grandeur, cheap and great;
Where but bad-folks fear ye laws
And but "Browns" are Governors!

Then ye mover cocks his eye,
Curves his spine and smites his thigh
While the hope his heart approves
Comes to move him, and he moves.

Where the *righteous* rest we know,
Also, where ye *wicked* go;
But what future place may be
Ye mover's, is a mystery!

How were mortal mover blest
In a world without a—West,
Who, with half a Hemisphere,
Weeps, a wilderness, to clear?

Speed we then ye mover-man
In his moving while he *can*;
Blest, if not a hope as dim
Moveth us as moveth him.

*From the New-York Skipping List***COTTON CROP OF THE UNITED STATES,****Statement and Total Amount for the year ending the 31st of August, 1859.**

| | | TOTAL. | | | |
|--|-----------|--------|-----------|-----------|-------|
| NEW ORLEANS. | | Bales. | 1859. | 1858. | 1857. |
| Export— | | | | | |
| To Foreign ports..... | 1,580,581 | | | | |
| Coastwise..... | 196,590 | | | | |
| Burnt at New-Orleans. | 11,335 | | | | |
| Stock 1st Sept. 1858.... | 26,022 | | | | |
| | 1,814,520 | | | | |
| Deduct— | | | | | |
| Received from Mobile. | 59,703 | | | | |
| Montgomery, &c.... | 13,540 | | | | |
| Received from Florida. | 6,684 | | | | |
| Received from Texas.. | 35,097 | | | | |
| Stock 1st Sept. 1859.... | 30,230 | | | | |
| | 145,254 | | | | |
| | 1,669,274 | | 1,576,409 | 1,435,000 | |
| MOBILE. | | | | | |
| Export to For'gn Ports.. | 514,985 | | | | |
| Coastwise..... | 179,854 | | | | |
| Consumed in Mobile &c | 1,120 | | | | |
| Stock 1st Sept. 1858.... | 20,106 | | | | |
| | 716,015 | | | | |
| Deduct— | | | | | |
| Rec'd from N. Orleans. | 782 | | | | |
| Received from Texas.. | 154 | | | | |
| Stock 1st Sept. 1858.... | 10,675 | | | | |
| | 11,609 | | | | |
| | 704,406 | | 522,364 | 503,177 | |
| TEXAS. | | | | | |
| Export to For'gn Ports, | | | | | |
| incl'd 2,000 to Mexico. | 79,554 | | | | |
| Coastwise..... | 111,672 | | | | |
| Manuf'd in Galveston. | 100 | | | | |
| Stock 1st Sept. 1859.... | 2,655 | | | | |
| | 193,961 | | | | |
| Deduct— | | | | | |
| Stock 1st Sept. 1858.... | 1,899 | | | | |
| | 192,062 | | 145,286 | 29,832 | |
| FLORIDA. | | | | | |
| Export— | | | | | |
| To For. Ports—Up'ds.. | 40,102 | | | | |
| Sea Islands..... | 750 | | | | |
| Coastwise—Up'ds..... | 112,873 | | | | |
| S. Islands..... | 19,603 | | | | |
| Stock 1st Sept. 1859.... | 236 | | | | |
| | 173,561 | | | | |
| Deduct— | | | | | |
| Stock Sept. 1st 1858.... | 30 | | | | |
| | 173,434 | | 122,351 | 136,841 | |
| GEORGIA. | | | | | |
| Export— | | | | | |
| To For. Ports—Up'ds.. | 253,745 | | | | |
| S. I.... | 8,208 | | | | |
| Coastwise—Up'ds..... | 197,266 | | | | |
| S. I..... | 8,493 | | | | |
| Stock in Savannah, 1st | | | | | |
| Sept. 1859..... | 9,320 | | | | |
| Stock in Augusta, &c., | | | | | |
| 1st Sept. 1859..... | 9,063 | | | | |
| | 466,198 | | | | |
| Deduct— | | | | | |
| Rec'd fm Florida—S. I. | 7,346 | | | | |
| Uplands | 461 | | | | |
| Stock in Savannah, 1st | | | | | |
| Sept. 1858..... | 634 | | | | |
| Stock in Augusta, &c., | | | | | |
| 1st Sept. 1853..... | 1,901 | | | | |
| | 10,395 | | | | |
| | 475,788 | | 282,973 | 822,111 | |
| SOUTH CAROLINA. | | | | | |
| Export from Charleston. | | | | | |
| To For. Ports—Up'ds.. | 316,555 | | | | |
| S. I.... | 23,339 | | | | |
| Coastwise—Up'ds..... | 149,713 | | | | |
| S. I..... | 3,680 | | | | |
| Burnt at Charleston... | 22 | | | | |
| Stock in Charleston 1st | | | | | |
| Sept. 1859..... | 17,592 | | | | |
| Export from Georgetown, S. C., to Coast- | | | | | |
| wise Ports—Uplands. | 1,242 | | | | |
| | 512,173 | | | | |
| Deduct— | | | | | |
| Rec'd fm Florida—S. I. | 8,733 | | | | |
| Up'ds. | 754 | | | | |
| Rec'd fm Sav'l—S. I. | 895 | | | | |
| Up'ds. | 8,663 | | | | |
| Received from Savan- | | | | | |
| nah per stem' Hunts- | | | | | |
| ville, and Re-shipped | | | | | |
| —Uplands..... | 560 | | | | |
| Stock in Charleston, 1st | | | | | |
| Sept. 1858..... | 11,715 | | | | |
| | 31,520 | | | | |
| | 430,653 | | 406,251 | 397,331 | |

| NORTH CAROLINA. | | TOTAL. |
|---------------------------------|-----------|----------------------|
| Export— | Bales. | |
| Coastwise..... | 37,482 | 1859. 1858. 1857. |
| | | 37,492 23,900 27,147 |
| VIRGINIA. | | |
| Export— | | |
| To Foreign Ports..... | none | |
| Coastwise..... | 21,537 | |
| Manuf'd (tak'n fm Ports) | 11,699 | |
| Stock, 1st Sept., 1859.. | 375 | |
| | | \$3,611 |
| Deduct— | | |
| Stock 1st Sept., 1858.. | 600 | |
| | | 33,011 24,705 £3,773 |
| Received at New-York, Over- | | |
| land, from Tennessee, &c.... | 47,175 | 2,022 |
| Received at Philadelphia do. | 29,463 | 3,275 |
| " at Baltimore do. | 8,683 | 1,296 |
| | | |
| TOTAL CROP UNITED STATES | 3,851,481 | 8,113,962 2,989,519 |
| Increase over Crop of 1858..... | | bales. 787,519 |
| Increase over Crop of 1857..... | | 911,982 |
| Increase over Crop of 1856..... | | 323,636 |

| Comparative Crop Statement. | | | |
|---|-----------|------------------------|-----------|
| Crop of | Bales. | Crop of ... Bales. | |
| 1858—9..... | 3,851,481 | 1840—1..... 1,634,945 | |
| 1857—8..... | 3,113,962 | 1839—40..... 2,177,835 | |
| 1856—7..... | 2,939,519 | 1838—9..... 1,360,532 | |
| 1855—6..... | 3,527,845 | 1837—8..... 1,801,497 | |
| 1854—5..... | 2,847,339 | 1836—7..... 1,422,930 | |
| 1853—4..... | 2,930,027 | 1835—6..... 1,360,725 | |
| 1852—3..... | 3,262,882 | 1834—5..... 1,254,328 | |
| 1851—2..... | 3,015,029 | 1833—4..... 1,205,394 | |
| 1850—1..... | 2,355,237 | 1832—3..... 1,070,438 | |
| 1849—50..... | 2,096,766 | 1831—2..... 987,477 | |
| 1848—9..... | 2,728,596 | 1830—1..... 1,038,848 | |
| 1847—8..... | 2,347,634 | 1829—30..... 976,845 | |
| 1846—7..... | 2,778,651 | 1828—9..... 705,415 | |
| 1845—6..... | 2,104,537 | 1827—8..... 727,593 | |
| 1844—5..... | 2,394,503 | 1826—7..... 957,281 | |
| 1843—4..... | 2,030,469 | 1825—6..... 730,027 | |
| 1842—3..... | 2,378,875 | 1824—5..... 569,249 | |
| 1841—2..... | 1,683,574 | 1823—4..... 509,158 | |
| | | | |
| Crop of Sea Island Cotton.—The Crop of this Staple past year (included in the General Statement) was as follows:—Florida, 21,353 bales; Georgia, 9,952; and South Carolina, 18,734—total, 49,039 bales, against 40,556 in 1857—8; 45 3-4 in 1856—7; 44,512 in 1855—6; 40,841 in 1854—5; and 39,686 in 1853—4. | | | |
| Exports to Foreign Ports, from Sept. 1st, 1858, to August 31st, 1859. | | | |
| FROM | To Gr't | To F'n P'sl | Total. |
| New Orleans, b'l's | 949,696 | 256,477 | 1,202,475 |
| Mobile..... | 351,354 | 105,770 | 38,287 |
| Texas..... | 46,623 | 7,875 | 23,036 |
| Florida..... | 40,801 | | 51 |
| Savannah..... | 253,402 | 7,815 | 11,264 |
| Charleston..... | 218,047 | 42,234 | 40,590 |
| North Carolina..... | | | |
| Virginia..... | | | |
| Baltimore..... | 20 | | 84 |
| Philadelphia..... | 1,715 | | 1,715 |
| New York..... | 122,234 | 30,565 | 31,417 |
| Boston..... | 8,380 | | 8,257 |
| Grand Total.... | 2,019,252 | 450,696 | 830,012 |
| Total last year.. | 1,809,968 | 384,002 | 215,145 |
| | | | 181,942 |
| Increase..... | 209,236 | 66,694 | 114,867 |
| | | | 40,101 |
| | | | 430,943 |

| Consumption. | |
|--|------------------|
| Total crop of the U. States, as before stated..... | bales. 3,851,481 |
| Add—Stocks on hand at Commencement of the Year, 1st Sept., 1858..... | |
| In the Southern Ports..... | 57,604 |
| In the Northern Ports..... | 45,322 |
| | 102,926 |
| Makes a supply of..... | 3,954,407 |
| Deduct therefrom— | |
| The Export to Foreign Ports 3,021,403 | |
| Less, Foreign included..... | 884 |
| | 3,020,519 |
| Stocks on hand Sept. 1, '59 : | |
| In the Southern Ports..... | 85,369 |
| In the Northern Ports | 63,878 |
| | 149,237 |
| Burnt at N. Orleans, N. York and Philadelphia..... | 11,402 |
| Burnt and Manuf'd at Mobile, Charleston and Galveston... 1,242 | |
| Manufactured in Virginia..... 11,699 | |
| | 24,433 |
| | 3,194,189 |

Taken for home use North of Virginia bales.. 760,218
 Taken for Home Use in Virginia and South and West of Virginia..... 167,433
 Total Consumed in the United States (including burnt at the Ports,) 1858—9..... 927,651

Taken for Home Use.

| Year. | Bales. | Year. | Bales. |
|-------------|---------|--------------|---------|
| 1857—8..... | 595,562 | 1851—2..... | 699,603 |
| 1856—7..... | 819,936 | 1850—1..... | 485,614 |
| 1855—6..... | 770,739 | 1849—50..... | 613,498 |
| 1854—5..... | 706,412 | 1848—9..... | 642,485 |
| 1853—4..... | 737,236 | 1847—8..... | 616,044 |
| 1852—3..... | 803,725 | | |

We give below our usual Estimate of the amount of Cotton consumed the past year in the States South and West of Virginia, and not included in the Receipts at the Ports. Thus—

| N. Carolina. | bales..... | 1855. | 1856. | 1857. | 1858. | 1859. |
|-----------------------|------------|--------|--------|--------|--------|-------|
| South Carolina..... | 18,500 | 32,000 | 25,000 | 26,000 | 29,000 | |
| Georgia | 10,500 | 15,000 | 17,000 | 18,000 | 20,000 | |
| Alabama..... | 20,500 | 25,000 | 23,000 | 24,000 | 26,000 | |
| Tennessee..... | 5,500 | 6,500 | 5,000 | 8,000 | 10,000 | |
| Or the Ohio, &c..... | 4,000 | 7,000 | 9,000 | 10,000 | 13,000 | |
| Total to Sept. 1..... | 26,000 | 42,000 | 38,000 | 39,000 | 45,000 | |

To which, if we add, (for the past year,) the Stocks in the interior Towns 1st inst., (say 8,600 bales,) the quantity now detained in the interior, (say 9,000 bales) and that lost on its way to market, to the Crop as given above, received at the Shipping Ports the aggregate will show, as near as may be, the amount raised in the United States the past seaon—viz., in round numbers, 3,874,000 bales, (after deducting 12,300 bales new crop received this year to 1st inst.) against

| 1858..... | bales..... | 1852..... | ..... | 1,109,000 |
|-----------|------------|-----------|-------|-----------|
| 1857..... | 3,014,000 | 1851..... | ..... | 2,450,000 |
| 1856..... | 3,335,000 | 1850..... | ..... | 2,312,000 |
| 1855..... | 3,186,000 | 1849..... | ..... | 2,810,000 |
| 1854..... | 3,000,000 | 1848..... | ..... | 2,357,000 |
| 1853..... | 3,260,000 | | | |

The quantity of Cotton received at the Shipping Ports to 1st September was—in

| 1859..... | bales..... | 1849..... | ..... | 7,500 |
|-----------|------------|-----------|-------|------------|
| 1858..... | 8,031 | 1844..... | ..... | 7,500 |
| 1857..... | 100 | 1843..... | ..... | 300 |
| 1856..... | 1,800 | 1842..... | ..... | 3,000 |
| 1855..... | 25,079 | 1841..... | ..... | 32,000 |
| 1854..... | 1,830 | 1840..... | ..... | 30,000 |
| 1853..... | 6,716 | 1839..... | ..... | no account |
| 1852..... | 5,125 | 1838..... | ..... | " |
| 1851..... | 3,200 | 1837..... | ..... | " |
| 1850..... | 235 | 1836..... | ..... | 9,762 |
| 1849..... | 575 | 1835..... | ..... | 3,424 |
| 1848..... | 3,000 | 1834..... | ..... | small |
| 1847..... | 1,181 | 1833..... | ..... | large.. |
| 1846..... | 200 | | | |

The increased and growing importance of Memphis and Nashville, Tenn., as Cotton receiving and distributing points, cannot have escaped the notice of all interested in the Cotton Trade; and within a few years past, the trade in Cotton at both these points, has assumed a magnitude and consequence too great to be overlooked in making up an Annual Statement of the Crop of the United States. It is well known that the Crop as heretofore compiled by us, has included only Cotton received at the seaboard, and was, therefore, emphatically the *Commercial Crop*, rather than a full Statement of the *Production of the Country*. To meet this apparent omission, however, we have introduced for several years past, a careful estimate of the amount consumed in the interior of the Country, and have given the totals, both of this, and the consumption of the seaboard. It is now claimed, however, that Memphis, and perhaps Nashville, and other important points at the West (on the Mississippi River,) should be added to the Cotton Ports of the Country, and the shipments from these places, whether to the Atlantic Ports or to the Interior, added to the Crop of the United States. On the other hand, it is said that such a course would be a novelty, and an innovation unequalled for by the interests of the Trade, inasmuch as the Commercial Crop, as heretofore made up, is also applicable to the needs of Foreign and Coastwise shipment, and that comparisons with former years would be valueless and illusive. We have thus stated the case, and wait further developments as to the necessity or propriety of any change hereinafter in our mode of ascertaining the Crop of the Country. The following from the Memphis Bulletin, of 1st inst., will give an idea of the extent of the business referred to, besides which it is stated that 20,000 bales were shipped "North" from Nashville: "We append a Statement of the amount of Cotton Receipts during the past year, and so as compared with the past nine years as follows: Crop of 1851—1, 163,000 bales; 1852—2, 72,000; 1852 3, 202,000; 1852 4, 188,000; 1854 5, 290,000; 1855—6, 295,000; 1856—7, 281,000; 1857—8, 243,000; 1878—9, 325,450."

Of this year's receipts, 241,451 bales were shipped to New Orleans (and of course counted there,) and 83,561 "Up the River"—a large portion of which we include in Receipts at New York and other Atlantic Ports, as has been our custom for many years past.

It may be well to observe, that the preceding Statement of the Crop, is that of the UNITED STATES, as a whole, and does not purport to give the Crops of the States through the Shipments, Stocks, &c., are necessarily arranged under the different leading Shipping Ports or States, as the case may be.

Value the friendship of him who stands by you in the storm; swarms of insects will surround you in the sunshine.

For the Southern Cultivator.

COUNTRY LIFE.

BY SIBYL GREY.

"God made the country and man man made the town;" but it requires the highest cultivation of all our perceptions, tastes and faculties, to be capable of comprehending or appreciating the vast difference in the instructions to be obtained from the teachers in these schools.

Go out in a morn of brightness, when every life-throb, and pulse beat of flower, and grass, and bird and beast is telling of vigor and hope; enter that wood, flooded with glory and beauty, of light; of shadow falling gently aslant the topmost boughs of the trees, as if afraid yet to venture in and take place on Mother Earth, so eager is the striving towards the life-giving sun, of all the sense-awakened, many-statured breathers within its pale, and make acquaintance first with the earth-blossoms, the small and scarcely noticed flowers that render earth like heaven's night-roof, when it is "thick inlaid with patines of bright gold;" a moving tapestry, inwoven, wonderfully, with many-tinted gems and jewels, breathing fragrance, over their woof of verdure, for there are rich treasures of beauty and wisdom hid beneath each bed of moss, the foot presseth springingly and every grass tuft that delighteth the eye—

"I know a bank whereon the wild thyme grows,"

You know them not, those richly scented, velvet-petaled, rose-tinted little flowers, that scarce raising their bell-shaped heads from off their mother's bosom, grow ever "like two cherries on one stem." Rarer, richer, is the perfume they throw out from their lowly bed than violet-jasmine or attar-gul yields, and scarcely known is the perfume-laden essence that distils from those twin-loving flowerets that only lay on old winter's frost-lap, one bright red berry for earth's summer-fostering, and months of dewy gemming, and many days of shower and rain, and recurring sunlight, one bright red berry from two fragrant flowers. Know you the shrinking, root-loving, bank-covering, rich, green-leaved, creeping mitchella? the Partridge berry, that, delighting in shade, covers acres on acres of woodland, where the sun's rays scarcely ever penetrate! This is but one of our Earth-beauties. Know you the air-plants, the creepers, the clinging, loving ones of earth, that thrust upward from their birth-place, must be sustained and cherished, protected, by some nobler plant, not the grand old master vines, climbers, that by right ascends majestically to the fore-front of oak or maple, and hang out their banners of brilliant effulgence on the outer walls, and challenge sun and sky—and brave storm and wind-blast? Know you the myriad creepers, shy ones, that entwine lovingly around foot-stalk and stem of humbler plants, and mingling their unwanted hues with those of the protector adorn more varyingly the wood-side walk? Know you the many Aster, whose rays of pink or blue, or white or yellow, shoot out and seek air and light, through the tufts of blooming grasses that, in feathery lightness and varied fringings, are usurping too much space? Know you the Club rush's, Adder's Tongues, Gerardia's, Wax-plants, the Mocasin-flowers, Noble Liverworts, Draba-vernas, Mielillas, Monkey-flowers, Ground pines, in all their varied hues and forms, their sweetness and loveliness, that form rising air terraces through that wood? Coreopsis, all the tribe of sunflowers, from one to a dozen feet high, who, according to ancient story, "turn on their God when he sets, the same look of adoring love that they gave when he rose?" Know you, as you bend your eyes downward, ere you attempt to learn one lesson from stately stem of shrub or bush or towering tree, the myriad legions that, bending in grace and loveliness, adorn every

foot of that wood-walk, and wooingly, with sweet breathings, win you to learn of them lessons of faith and trust, of hope and cheering, kindness and forbearance? for all these ethics and christian graces are folded within their many-colored petals, shower forth from their fragrant farina, or evelve from their sparkling leaves. Know you them? Not botanically, not scientifically, (though there are right good lessons to be gained from them thus also) but know you these nurslings of God's hand as they come forth, by Him adorned in morning costume of sweet-scented drapery and various hued covering, as friends and darlings? Know you them thus? Go learn these lessons! Begin with the humblest, the lowly ones of earth; learn from them content, humility, gratitude and beneficence; shower, as they do, fragrance and blessing on all around; then raise up your eyes, now enlightened, and take another lesson in heaven's tutoring; ascend the ladder of learning with the rising wood; learn to know, admire and love the beautiful grandeur, excellence, and adaptation of the myriads of wood inmates, that each its own place fills in orderly progression, and yet, in peaceful emulation, striving for space and light, for life sustenance, and thus fill up the area between earth's carpeting and her tree embowered canopy.

Ah! these studies will fill up thy time with buoyant lightness and pleasurable excitement—such as town's lessons cannot give—will refresh thy weary heart, ease thy care-worn spirit, lighten thy troubled brow, plant smiles even on furrowed cheeks, and send back to thy pillow (if she has fled it) "Nature's sweet restorer, balmy sleep." Oh! enter these woods and learn of God in life and nature, from insect, bird and flower, the high and holy lessons they unfold that will prepare thee for a place in the Paradise of God; all untutored wilt enter heaven, and there be set to con the elementary principles of grace, benignity and grandeur, that God scattered profusely around thy pathway from the cradle to the grave—as teachings for thy spirit. Deser not to learn on earth the preparatory lessons needed for the enjoyment of heaven; for it is only by intense activity that the endowments of our nature become developed; the arm gains vigor by daily toil, and the mind increases its power by exercise of thought, and the affections are refreshed and invigorated by habitual use. Without knowledge or a cultivated understanding, we can neither appreciate nor enjoy the stores of Literature, the discoveries of Science, nor the glowing beauties of Art—lost, on the dull untutored ear, are all but the simplest notes of music; blank to the unpracticed eye, are all the wondrous magic touches of Raphael's or Titian's pencil. Vaguely fall on the untutored mind the lessons of earthly wisdom, or science; and the teachings of the winds, the waves, the woods, the earth and sky are lost, lost, lost to those who do not open the book and carefully scan, and reverently read the lines so clearly traced by a Divine hand. "The Great Teacher," our blessed Kedeemer and Exemplar, illustrated and elucidated the mysteries of life and his religion, by reference to Nature and her works; when his disciples were tried, harassed and perplexed, dismayed in ignorant fear or blind incredulity, he led them to faith and hope, by no high-sounding moral thesis, no learned disquisition, no argumentative demonstration of right and wrong; he simply guides their thoughts to God's manifest and boundless love; he reminds them of the omnipresent care that guides the stars, that holds the winds in the hollow of his hand, and upholds the minutest things; he bids them "consider the lillies of the field, how they grow; they toil not, neither do they spin, and yet, I say unto you, that Solomon in all his glory was not arrayed like one of these; if God so clothes the grass, which is to-day in the field and to-morrow is cast into the oven, shall he not much more clothe you? Consider the ravens, for they neither

sow nor reap; which neither have store house nor barn, and God feedeth them. And one sparrow, he assures them, cannot fall without his notice." Oh! let us obey these divine behests and go forth into the fresh air, and learn the lessons our Great Teacher has set for our instruction. Let us bathe our whole soul in the revelations of pure light that the ministry of Nature pours out around us. Let us hear the sounds of gladness that issue from swinging nest and hanging chrysalis, and rocking tree-top, and trickle and sparkle from every water-fall. Let us listen to the thousand voices in wood, and brake, and sea and marsh, from sea-shore, and mountain height, that whisper and carol, and loud roaring, proclaim the sweet, comforting Gospel—God is love. Let us study and learn to love and practice the example our Heavenly Father has spread over the whole universe, in the beauty, order and adaptation of the wondrous works of his hand; to the love and benediction of the sentient beings he has created.

Broadcast over the land, are scattered seats of learning, College Halls, with nobly endowed Professorships, whose chairs are ably filled by learned men, through which pass many students, attaining, according to their habits or course of study, varying degrees of honor. Salaried Professors of all the 'logies are there—Physiology, Philology, Psychology, Ornithology, Conchology, Meteorology, Astrology, Entomology, and, perhaps in many of these halls of learning one unsalaried Professor takes his chair and keeps it, receiving greater assiduity of attention from his students than some of the other ological tutors can boast—Demonology. In towns, too, are all manner of schools of learning, and teachers of craft and cunning, lore, and creed, with scholars of creditable attainments, in the various departments of study. Male and female schools, from which yearly are turned out students of such self-evident proficiency in many of the 'logies therein taught, that it boots not to ask for diploma, as evidence of their having been matriculated in these halls; for there are young ladies, *au fait*, most admirably to dress-ology, flirt-ology, romantic-ology, scandal-ology, waste-time-ology, street-strut-ology, love-of-admiration-ology, &c., &c., and young gentlemen of rare attainments, and unquestioned ability in smoke-ology, drink-ology, vapid-ology, very-sopt-ology, and many others, too numerous to be mentioned. But amid all these, who knows or hears of Professors or students of the noblest 'logy of them all, the study best suited to our wants, capacity and destiny—Nature-ology—containing within itself a score of elevating, enlivening, soul-stirring, mind-exalting heart-benefiting 'logies, from those that are adapted to the comprehension of the wee-ones of the household, nest-ology, egg-ology, bird-ology, to those that might enrapture and enlighten the possessors of the highest gifts of intellect—flower-ology, leaf-ology, tree-ology, dew-ology, cloud-ology. Oh! how many renovating, redeeming studies, emanate from wood-craft properly taught.

But the Professorships of these higher branches of study need no endowed halls, no classic precincts, for their able occupancy—in every home, beneath every roof-tree of our country fife-sides, ought to go forth, with loving hearts and ripened intellects, the professors of Nature-ology, in the fathers and mothers of our land, leading their children daily, by loving culture and tender training, from Nature up to Nature's God.

The Harvests of the World.—We now enjoy a goodly prospect of abundant harvests, and consequently cheap food. Not only in the United States will the yield of cereal products be affluent, but also in England, Ireland and France. Indeed, all over the European continent, the gather in is likely to exceed, in abundance, that of many former years.

EFFECT OF CLIMATE ON WOOL.

"T. FANNING, President of Franklin College, Tenn., in replying, through the *Southern Homestead*, to Mr. Cockrill's 'challenge' in regard to Saxon sheep says:—'The effect of a warm climate, is to thin out and shorten the fibre, and lighten the fleece, take the wool from the limbs and under portions of the body, and substitute rough and hairy locks, particularly about the hips, neck, etc. In higher latitudes, sheep are more compact and uniform in fleece over the whole body, and the yield is perhaps double the Southern flocks. As we approach the North Pole, in order to prevent the escape of animal heat, the Almighty makes the fibre finer and astonishingly softens and thickens it over the body. This is exemplified in the animal creation. Even the wolf that is here a bristly beast, in the North is clothed with a fine, soft fur; and there is not a fur-producing animal whose fibre is not gayer and softer to the touch in the North than in the South.'"

EDITORS SOUTHERN CULTIVATOR—The above is an extract from the *Ruralist*, a valuable paper, published in Springfield, Ohio.

I ask you, your readers and the balance of mankind, if "T. Fanning, President of Franklin College, Tenn.," is right or wrong. His being "President of Franklin College, Tenn.," of course gives him an importance before a certain people, but as President, D. D., and "a' that," gives a man no peculiar field privileges, I place no extra faith in fine wools deteriorating than if John Smith, J. P., had said it. We plain farmers want to know how long "T. Fanning, President of Franklin College, Tenn.," has been raising fine wool sheep in the South—whether he knows, from his own experience, whether by good—or by management, good or bad, feeding or no feeding, that there is a falling off even in New England? Mr. Cockrell we know—he is an old shepherd—has been engaged in shearing fine wool sheep for 23 years to our certain knowledge. Mr. "T. Fanning, President of Franklin College, Tenn.," fails in his illustrations, comparisons, &c., to convince one as sceptical as we are, especially when we find the fine wool sheep are originally from Spain, and, though taken to Saxony, North, and improved, yet taken to Australia, South, also improve, showing it was possible after all, that attention had something to do in the matter.

"Facts are *stubborn things*;" and should sheep deteriorate, as "T. Fanning, President of Franklin College, Tenn.," holds, Mr. Cockrill has imposed on his fellows and ought to be cashiered from the position (we think deservedly held) of head and shoulders above any of your little, one-horse Colleges. We have a sort of hydrophobia dread of these schoolmen writing, and especially when they pitch in to climatic influences, we elders think, whether the writer be a Southern man with Northern principles or not.

Why is it that there are sheep in the South that yield a larger fleece than some North, and command as high a price per pound? Suppose it be due to attention, what of it? How account for flocks in Vermont increasing over 2 or 3 pounds per head in the hands of some men? Only attention and proper quantity and quality of food. We

read in the *Homestead* what "T. Fanning, President of Franklin College, Tenn.," said, and did not greatly admire his matter and much less the spirit thereof. We want light—facts—and if we cannot grow wool in the South it should be known, and for one, we ourselves would be thankful to any one, titled or not, to put us in possession of facts. It might be hinted at, that titles make facts no stronger.

A SOUTH CAROLINIAN.

October, 1839.

MAKE HOME BRIGHT AND PLEASANT.

More than building showy mansions—

More than dress and fine array—

More than domes or lofty steeples—

More than station, power and sway :

Make your home both neat and tasteful,

Bright and pleasant, always fair,

Where each heart shall rest contented,

Grateful for each beauty there.

More than lofty, swelling titles—

More than fashion's luring glare—

More than mammon's gilded honors—

More than thought can well compare :

See that home is made attractive,

By surroundings pure and bright,

Trees arranged with taste and order,

Flowers with their sweet delight.

Seek to make your Home most lovely,

Let it be a smiling spot,

Where, in sweet contentment resting,

Care and sorrow are forgot;

Where the flowers and trees are waving,

Birds will sing their sweetest songs,

Where the purest thoughts will linger,

Confidence and love belongs.

Make your Home a little Eden,

Imitate her smiling bowers,

Let a neat and simple cottage

Stand among bright trees and flowers,

There, what fragrance and what brightness

Will each blooming rose display!

There, a simple vine-clad arbor

Brightens through each summer day.

There, each heart will rest contented,

Seldom wishing far to roam,

Or, if roaming, still will cherish

Mem'ries of that pleasant Home;

Such a Home makes man the better,

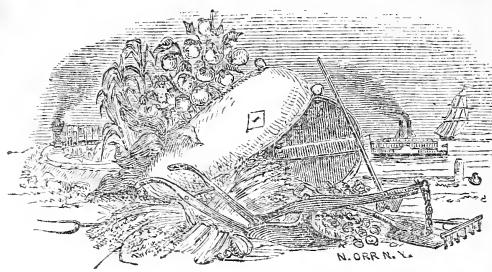
Pure and lasting its control—

Home, with pure and bright surroundings

Leaves its impress on the soul.

The Vintage of Ohio.—Mr. Longworth, the largest wine manufacturer in the country, says:—"We may now feel certain of a large crop of grapes, probably as large a yield as for the last three years. One reliable vintner, who, a few years since, made 1000 gallons from an acre, expects this fall to make 1200 gallons."

An Old Fruit-bearing Tree.—Jacob Ziegler, Esq., plucked some apples from a tree which was planted by him in Hanover township, Adams county, eighty years ago. The tree is still vigorous and thrifty, bearing a large crop this season. Mr. Ziegler was a lad of eight years old when he planted the tree, and is now in his eighty-eighth year, being one of the eldest men living in the county. What an example is here presented to imitate.



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII, NO. 11. NOVEMBER, 1859.

RENEW YOUR SUBSCRIPTIONS--1860!

One number more will complete our *Seventeenth Volume*, and close the year 1859. We desire to arrange our mail books for the next year as early in December as possible, and will be thankful to all our subscribers who will renew at once, and send us as many additional names as possible. The *Cultivator* is, we are glad to know, valued very highly wherever known, and all that is necessary greatly to extend its circulation and usefulness, is an effort on the part of our friends to introduce it in places where it has hitherto been a stranger.

ANSWERS TO CORRESPONDENTS.

HEALTH AND LONGEVITY OF FARMERS.—L. K. O.—If your peculiar *locality* is healthy, there can be no question concerning the healthfulness of the business of farming. If you are exposed to dampness or malarious influences, it is prudent to eat your breakfast or at least take a cup of tea or coffee before going out in the morning. A person is peculiarly liable to sickness or contagion "on an empty stomach." One of our exchanges gives the following good reasons why farmers *ought* to be more healthy than "professional men":—1. They work more and develop all the leading muscles of the body. 2. They take their exercise in the open air and breathe a great amount of oxygen. 3. Their food and drinks are commonly less adulterated and far more simple. 4. They do not overwork their brain as much as industrious professional men. 5. They take their sleep commonly during the hours of darkness, and do not try to turn day into night. 6. They are not so ambitious and do not wear themselves out so rapidly in the contest of rivalry. 7. Their pleasures are simple and less exhausting."

MISSING NUMBERS.—C. G. C.—The desired number has been mailed to you. The Postoffice was at fault, as usual.

"CHECK REIN" FOR HORSES.—A. L. C.—The "check strap" or "bearing rein," used to draw up the heads of horses, is cruel and unnecessary. The horse that is endeavoring to expend his strength needs the free, natural use of head and neck. The cramping position, now enforced, is alike severe and injurious to horses in any business, and should be eased off, till nature has free play.

LOOMS AND SPINNING JENNIES.—A. K. E.—For information in regard to *Mendenhall's Hand Loom*, address W. B. Griffin, Augusta Ga. We do not know the manufacturer of a Spinning Jenny to go by hand, though we

are confident there is such a machine. Will not the patentee or maker advertise or describe it in our paper? We quite agree with our correspondent that in many cases the above machines would be good substitutes for the Piano Forte, and would make better music than that horribly tortured and abused instrument.

QUINCE CULTURE.—B. A. S.—Transplant in November or December—making the ground very deep and rich—train up to a single stout trunk or stem—keep the ground around the trees loose and mellow, and give it a top-dressing of salt from time to time. Cow Peas may cover the spaces between the trees in summer, but they must not be allowed to grow too near, or twine around them. Always turn the vines under as soon as they begin to form pods, and sow again, if the season is not too far advanced. This will make your land very rich in a few years. Ten feet every way is a good distance for the Quince. It is, as you say, worthy of more attention than it has received in the South.

ARKANSAS LANDS.—C. A.—We sent you the desired address per mail.

VINE GROWER AND WINE MAKER WANTED.—A Subscriber at Marion, Ala., will give good encouragement to any person who, properly understanding the business, will establish and tend a Vineyard for him at that place. We will forward all communications from applicants.

STEAM ENGINE, &c.—J. L.—See the advertisement of Payne & Olcotts, on cover, and write to them for information.

WIRE FOR VINEYARDS.—A. P.—The price of No. 10 wire, at wholesale, in New York is 5 1-2 cents per pound. (A pound of this is twenty feet long.) Of No. 12, per pound, 5 3-4 cents. (A pound of this is a little over thirty-three feet long.) Of No. 13, per pound 6 1-4 cents, and the length per pound, a little over 42 feet. You can easily see by this, what your trellises will cost. No. 13 will do; but, of course, No. 10 is stronger and better. Address: GEORGE F. ADAM, care of Norton & Jewett, 33 Chambers st., New York.

To CORRESPONDENTS AND READERS.—We made a "resolute endeavor," this month to publish *all* the accepted original articles in our portfolio; but have not succeeded—the paper is not large enough! We have still a quantity of interesting communications unavoidably deferred until our next.

Several additional articles, notices of new books, &c., are reluctantly laid over. It will be observed that the present number contains a very large proportion of original matter. We trust our readers may find it interesting and instructive.

COLORED PLATES OF FRUITS, FLOWERS, &c.—We are indebted to the courtesy of D. M. DEWEY, of Rochester, N. Y., for a number of beautifully colored pictures of fruits and flowers, and would advise all who desire to obtain any of these articles to send to Mr. DEWEY for a Catalogue and Priced List.

STEINWAY'S PIANOS.—For the benefit of our friends in the country who are fond of music, we refer to these Pianos. We have had one in constant use for some time, and besides being an instrument of reasonable price and excellent tone, it keeps in tune under hard usage for a great length of time. This is a material point to a family in the country. These Pianos are for sale by Mr. ZOGBAUM, of Savannah, to whose advertisement we ask attention.

CONDENSED CORRESPONDENCE.

UTLEY'S PLOW—DEEP TILLAGE.—A very intelligent correspondent at Oxford, Ga., writes:

Editors Southern Cultivator—My attention was favorably arrested by the diagram and description of Utley's Plow. I have, for several years, had the impression that success in farming depends more upon deep, thorough plowing than upon anything else. I have acted upon this conviction in my planting operations, and, although my scale is rather limited, yet the facts and results of my experience show, beyond doubt, that more than half the planter's prosperity and wealth are treasured up in the subsoil plow. It is a certain protection, and *almost* if not *quite*, the *only* one against the blight of drouth upon our crops, and the ravages of time-culture upon the "heritage of our fathers."

J. R. T.

Oxford, Ga., 1859.

KILLING SWEET GUMS.—Much has been said about killing Sweet Gums. The best way is not to cut round, but pile brush and chunks around them and let it remain until the tree puts forth buds and the leaves make their appearance; then set fire to the brush, and if it does not burn the bark off all round, make a fire so that the bark will be burned off all round, and the tree will die before the leaves then on it are grown.

W. S. D.

FOX GRAPES—(*Vitis Labrusca*).—An experienced Pomologist, of Upper Georgia, says, in a private letter to one of the Editors:

I have no faith that we will ever get a first class Grape from the Fox family—all will have more or less of nigger stink, thick pulp and disposition to rot. But I have little doubt that the progeny of the Scuppernong will, some day, be all we can ask or desire. It has the true Muscat flavor and is exempt from every species of disease, in fruit, vine and leaf. I am going to raising seedlings from it, and next spring intend to cross it with the Muscat and some others of the best foreigners.

THE GRAPE IN TEXAS.—A correspondent at Mission Valley, Texas, says:

"I am going into the Wine Making business. The Grape does as well in this immediate district as it can do anywhere—it grows much more luxuriantly than our pumpkin, squash and melon vines. The only varieties we have are the Catawba, Black Hamburg, Malaga and El Paso. I believe all the varieties that do well with you will do well here. The Grape stands our drouths better than any other vine here, as yet."

J. M. E.

DEEP PLOWING AND MANURING—A gentleman of Burke county, Ga., writes us:

"I am delighted with the Utley Plow, with your improvements, as represented in the October number of the *Cultivator*. * * * I have set out with the determination to see what can be done on 25 acres of high, dry up-land, by ditching, underdraining, thorough subsoiling and the application of \$15 worth of Mapes' Super-Phosphate to the acre. I am fully satisfied from an experiment made by me (as above) this year that I can raise a bag of cotton or 30 bushels of corn per acre the first year, and bring every acre thus treated in good heart.

"With my best wishes for yours and the success of the *Cultivator*, believe me

Truly yours,

D."

 D. PONCE, Esq., of Mount Zion, Hancock county, Ga., will please accept our thanks for several samples of very nice native Wine—Scuppernong, Catawba, Devereux, Warren and Black Florida.

THE "OLD" SPIRIT OF THE TIMES.—It is only an act of editorial courtesy to our *ancient* friend, the "*Old*" *Spirit of the Times*, and one of the oldest weekly papers in the Union, to say, that it is not identified or involved in any way in the controversy recently brought before the public through "*Porter's Spirit*," and "*Wilke's Spirit of the Times*," a mistake that is not altogether unavoidable, the names of the papers mentioned being nearly the same. The "*Old*" *Spirit*, as it is familiarly termed by its friends and subscribers, still flourishes, the leading journal of the Turf and of the Field, and we are happy to hear that its subscription list was never larger than at present, or its editors and publishers more prosperous.

DELAWARE GRAPE.—We are again indebted to the kindness of Messrs. C. P. BISSELL & SALTER, of Rochester, N. Y., for a fine bunch of the *Delaware* Grape, which reached us in perfect condition after it had been some weeks gathered. We need not repeat that the *Delaware* is the very finest of all our Native Grapes, for the table, and that in delicacy of flavor, it is hardly equalled by the best Foreign varieties. It is better at the South than at the North, and should be in all tasteful collections.

MRS. BOUNETHEAU'S SCHOOL.—The attention of parents and guardians is respectfully directed to the advertisement of Mrs. BOUNETHEAU in present number. Mrs. B. has had much experience and great success as a teacher of young ladies, and we feel assured that her new Seminary will offer peculiar facilities for acquiring the graces and accomplishments of a polite and finished education.

THE "PRACTICAL MACHINIST" is the title of a very neat and tasteful weekly of 8 pages, published at 37 Park Row, New York, by T. H. LEAVITT & Co. Terms \$1 per year. It will be found interesting and useful to all who are devoted to the encouragement of inventive genius and mechanical skill.

SUN DIALS.—The attention of our readers is called to the advertisement of Mr. W. W. WILSON, of Pittsburg, Pa. The Dials of Mr. W. are of the very best description, and form a beautiful ornament to any country residence.

BIENVILLE (LA.) FAIR—The Second Annual Fair of the "Bienville Parish Agricultural Society" was held on the 25th ult., at Mt. Lebanon, and we learn from a correspondent that it was quite a creditable display, and excited much interest.

TEXAS GRAPES.—We learn from the New Orleans *Picayune* that in Caldwell county, Texas, the white Malaga Grape, grafted on the common Mustang Grape of that State has proved a perfect success. No larger bunches, or grapes more uniformly ripe, than samples of these Texas grapes could be presented. A suggestive fact to our fruit growers.

 Nothing prevents a person from being natural and easy, so much as an extreme anxiety to appear so.

CASS COUNTY FAIR.

WE regret that the crowded state of our columns prevents an extended notice of this gathering of the farmers of Cass. It was difficult to realize that 20 years ago, the Fair ground was a hunting ground of the Cherokee Indians. The advance has been marvelous. A portion of the exhibition would have done honor to an old and wealthy county. The exhibition of Horses was one of unusual excellence. The number of Cattle was small, but some of them of superior quality. The Sheep were also limited, but it would trouble Vermont to show finer Merinos of the same age, than those exhibited by Col. SPROULL. Some good specimens of Essex Hogs were on the ground. Our gallantry renders us reluctant to say that the ladies department might have been improved. We should be sorry to think that the farmers of Cass are in advance of their wives and daughters. We were delighted with the sterling good sense of the admirable address of Col. RYALS in its connection with this point. Whatever advantages of education in other branches we give our daughters, home education should not be omitted. It is sheer folly to educate a country girl as if she were destined to be a city belle. Neither man or woman ever direct others well in any given thing unless they know how to do it themselves. We trust that these suggestions will induce our fair county women to fill the ladies' hall, at the next Fair, with specimens of whatever is useful and elegant in the pursuits of country life.

A copy of the address of Col. RYALS, to which we have alluded, has been requested for publication. It will be read with interest, as it abounds in good thoughts beautifully expressed.

It was resolved by the Society to memorialize the Legislature in reference to Legislative aid to Agriculture, a step which it is to be hoped will be adopted by every agricultural society in Georgia. The success of the pertinacious suitor, who was accepted at last by the obdurate fair one, "to get rid of him," should teach us a lesson. Let the farmers of the South petition, memorialize, and insist and demand, until their rights are given them.

It was greatly to be regretted that the pleasantness of the occasion was interrupted just at its close by a collision between two young men, which ended in one being very seriously wounded. We do not know the parties or the cause of the quarrel, but this we do know: that it is an outrage to carry concealed weapons into an assemblage of this kind. It is a fit occasion on which to render conspicuous the majesty of the law. If this be not done, there will be few persons sufficiently hardy to expose their wives and daughters a second time to the recurrence of a similar peril. A man, detected with a pistol in his pocket on a fair ground, should be instantly expelled from it.

H.

 The First annual Fair of the Agricultural and Horticultural Society of Western Alabama, will be held at Demopolis, Marengo county, on the 1st day of November, and continues four days. The List of premiums is remarkably full and comprehensive for so young a Society.

RHODES' SUPER-PHOSPHATE OF LIME.

DURING the early part of this year, we received from Mr. RHODES two barrels of his Super Phosphate. We have delayed expressing an opinion in regard to it until the close of the season. It gives us pleasure to say that, upon certain crops, its effect has been remarkably good. Upon clover, it gave a good cutting, when the unmanured clover by the side of it did not grow tall enough to be cut. A similar effect was produced upon Lucerne. Upon Turnips, its results were equal to those produced by a heavy dressing of barn yard manure. A top dressing of the Super-Phosphate on wheat and oats produced no perceptible influence. And a handful to the hill of corn greatly increased the product. Perhaps its effects upon corn was more marked than in any other instance. The stand was perfect in a field in the rest of which the stand was bad—the corn grew more rapidly, was ready for gathering fully two weeks earlier and the produce much greater than upon the unmanured portion. We did not try it upon Cotton, but from an observation of its effects upon other plants, would conclude that in the higher part of the State this manure would be of great value in cotton culture, especially in hastening the maturity of the crop.

H.

GEORGIA MONEY FOR WESTERN PRODUCE.

FROM the Report of the Superintendent of the W. & A. Railroad, we learn some facts of great interest to the farmers of Georgia. For the year ending October 1st, 1859, there were shipped from Chattanooga and through it from the Tennessee Roads, the following items of freight. The value of the several articles is not given in the Report, but we have placed, as nearly as possible, an estimate of value upon each one and added the amount, that the people of Georgia might see how much money goes out of the State for articles which ought to be raised within it:

| | |
|---|----------------|
| Bushels of corn, 105,055 at 60 cts..... | \$ 63,033 00 |
| Bushels of wheat, 659,321, at \$1 | 659,321 00 |
| Pounds of bacon, lard, tallow and butter, 20,342,072, at 12 cts..... | 2,441,156 00 |
| Barrels of flour, 11,330, at \$6..... | 67,980 00 |
| Sacks of flour, 109,956, at \$3 | 329,868 00 |
| Number of cattle, 3,693, at \$10 | 147,720 00 |
| Hogs, 41, 215, at \$10..... | 412,150 00 |
| Total..... | \$4 121,228 64 |

This very large sum would be greatly increased if horses and mules were included, which, for some reason, have been omitted in the Report.

As a question of interest in the political economy of the State, we trust our Legislators will consider the exhibit thus made. This drain is excessive. It is of the worst kind, for we receive nothing in return for it. If we buy from England or the North, they buy from us our cotton in return. So that a portion of this money, at last, stays at home. The Western drover buys nothing, or next to nothing, from us. Beyond this the process which depletes our purses, enriches the Western farmers' land. Imagine the fattening of stock to the amount of nearly four millions of dollars annually in Georgia. But a few

years would serve to change the aspect of our impoverished fields.

This drain is not only wholly unnecessary, but it is the worst possible economy. We can, with proper preparation, raise stock cheaper than it can be raised in Kentucky. The lower down the country towards the coast we go, the greater the economy of stock raising. It is true we have no lands in large bodies, equal to those of Kentucky, but our inferiority in this respect is more than compensated by our superiority of climate.

We sincerely trust that our Legislature will take this subject in hand. By imitating the wise legislation of New York, we can be saved from this heavy annual loss.

H.

The Fair of the South Carolina Agricultural Society, will be held at *Columbia*, from the 8th to the 11th of November.

The Fair of the Alabama State Society, opens in *Montgomery*, on the 15th of November, and continues three or four days.

The United States Agricultural Society has awarded a gold medal to Fawkes's steam plow "Lancaster," and a premium of \$3,000 has also been awarded to it by the Illinois Central Railroad Company and the State Agricultural Society.

"TORCH HILL!"—A friend, whose criticisms are as genial and hearty as they are (sometimes) caustic—the well-known and redoubtable "Broomsedge"—in alluding to our pleasant and racy "Orchard Rambler" and rural Poet, "F. O. T.," says:

"My compliments to 'Torch Hill!' That chiel burns the brightest light I have followed lately," &c.

Yes!—"mighty little" smiske about that torch—'tis all "fat light 'ud"—sound, "heart pine"—and makes a blaze will do to "folthat low."—EDS.

Agricultural Department.

THE POMOLOGICAL RESOURCES OF THE South.

An Essay, read before the "American Pomological Society," at its Seventh Session, held at *Mozart Hall*, in the city of *New York*, Sept. 14, 15 and 16, 1858.

BY E. REDMOND, ASSOCIATE EDITOR OF THE "SOUTHERN CULTIVATOR."

[Concluded from our October number, page 315.]

NECTARINE.

The Nectarine is quite extensively cultivated among us, as an open air "standard," or orchard tree, and is equally as hardy as the peach. It bears as well and regularly as the peach, also; and is liable to the same enemies and disasters, with the addition of being far more attractive to the curculio, which finds easy access through its smooth and tender skin. We know of only one or two native Nectarines, of which the "Southern Queen" (white) is the best

APRICOT.

The Apricot grows vigorously, and is quite free from

disease as a tree; but its extreme earliness of blooming and the almost certain liability of the fruit being killed by spring frosts render it rather undesirable for orchard culture. We occasionally, however, gather very fine crops, and feel assured that if the trees were trained *en espalier*, so that they could be slightly protected, we should be much oftener gratified. A few samples of Southern Apricots have been sold in New York market at from \$1.50 to \$2.25 per dozen; which prices would justify far more care and attention than this delicate and rare fruit generally receives. A few native seedlings have been produced; but the "Oglethorpe" is the only one of particular merit that we are acquainted with.

PLUM.

The Plum grows vigorously everywhere in the South, and is not at all liable to the "black knot," or other serious maladies. It is, also, for some inexplicable reason, less subject to the attacks of the curculio than at the North; and, when pigs and fows are confined within the Plum orchard, and allowed a free range, we generally find no difficulty in raising fair crops. We have a few new seedlings of decided merit; and have growing everywhere, in the borders of our woods, along water courses, and in old fields, several wild varieties of "Chickasaw" and "Cherokee" Plums, scarcely inferior to many of the cultivated sorts.

CHERRY.

The Cherry can hardly be said to succeed well with us, generally. The Morellos often bear good crops, and some of the finer varieties have partially succeeded, when worked on Mahaleb stocks, planted in rather moist soil, and trained with low, spreading heads. But we most cheerfully yield the palm of superiority in Cherries to the North, which also possesses a climate more favorable than ours to the production of the Currant, the Gooseberry, the Raspberry, and, perhaps, the improved varieties of the Blackberry—though, with this latter fruit, farther experience is necessary. All the wild varieties of the Bramble (including the Blackberry, Dewberry, &c.,) grow luxuriantly and bear profusely in our woods and fields; and this fact would seem to promise success with the Lawton, Dorchester, &c.

GOOSEBERRY AND CURRANT.

The Gooseberry and Currant—two fine garden fruits of the North and of Europe—cannot be profitably cultivated in the South, and have been long since reluctantly discarded—or have we had very encouraging success, thus far, with the *improved varieties* of the Raspberry. One or two varieties of native Raspberries give us regular and good crops; but shade, mulching and a damp locality, are quite essential for even these.

STRAWBERRY.

The Strawberry is one of the most profitable and easily cultivated fruits of the South—beginning to ripen early in April, and continuing, if freely watered, to give us a constant supply of fruit during 4 or 5 months. We have had Strawberries at Augusta, Ga., nearly four months in succession, without artificial watering—though the average season is only about two to three months. Our native American varieties succeed best—the climate being too hot for the English and other foreign sorts, so far as tested.

THE JUJUBE AND THE OLIVE.

The Jujube and the Olive may also be ranked among our fruit trees, and are worthy of attention. The Jujube is just now beginning to be freely introduced into our nurseries and gardens, and deserves a place in all tasteful collections. It forms a medium sized tree, with very singular, tortuous branches, covered with long and formidable recurved thorns, and most beautiful, shining, dark green

foliage. The fruit is about an inch in length, oblong, of a brownish color, and having a flesh or pulp of the consistency and flavor of the dried dates of commerce, or a pleasantly sub-acid baked apple. The seed is also, similar to that of the Date—by which name the Jujube (*Ziziphus Sativa*) has sometimes been erroneously called. It grows freely from suckers, or pieces of roots; is very ornamental, and would make a defensive hedge of the most formidable description. The Olive has been successfully, though not extensively, cultivated on the sea coast of South Carolina, Georgia and Florida, for many years; and fine samples of the pure oil have been exhibited at our Agricultural Fairs, by Robert Chisolm, Esq., of South Carolina; Col. P. M. Nightingale, of Georgia, and, perhaps, others.

POMEGRANATE.

The Pomegranate is a very beautiful and certain fruit with us, but the shrub itself is a little tender north of 32°. The fruit is never killed, as it does not come into bloom until all possibility of late spring frost is over. Like the Orange and other tropical plants, it is a continuous bloomer during its season—though not an evergreen—often displaying ripe fruit and expanding blossoms at the same time. The fruit has hitherto been of no commercial importance, and is scarcely known in the market; but its gratefully acid and cooling juice has been found most useful and refreshing in fevers; and the beautiful and inviting appearance of the fruit, renders it an attractive and desirable object for the dessert. The rind or skin of the fruit is very bitter; and, possessing tonic properties somewhat analogous to Peruvian Bark, has sometimes been used as a substitute for that article by druggists. The Pomegranate grows readily from cuttings planted in the winter; and, in addition to its other uses, is capable of making a very neat and defensive hedge. We have several fruit-bearing and ornamental sorts, though but three varieties—the sweet, sub acid and sour—are in common cultivation.

THE FIG.

Of all fruits cultivated in the South, the Fig requires the least care, and is one of the most productive and useful. We have in common culture, only four or five varieties, though the lists of Nurserymen and amateurs embrace five or six times that number. South of 32°, the fig tree produces three crops a year, commencing in May, and bearing until November, but in Central Georgia, we generally gather but two crops per year, unless the season is peculiarly favorable—the first, or early crops, being often killed by spring frosts. Figs are mostly eaten directly from the tree, so soon as ripe, and may be found in abundance upon the breakfast tables of all lovers of fine fruit. When ripe, the Fig is mild, rich and luscious, without being at all cloying; and can be eaten to almost any extent, even by those of most delicate constitution. The fruit has little or no value for any other than the home market, being very perishable, when fully ripe; but preserved in syrup, dried, after the foreign mode, or pickled, it might easily be made a crop of great commercial importance to the South. The Fig tree grows very freely from cuttings, planted early in the spring, and will sometimes bear the first year—generally the second. The trees are sometimes cut down entirely to the ground by severe frosts; but they seldom or never fail to sprout again from the roots, and some varieties (like the Madonna) ripen a crop of fruit on shoots of the same year. It has ever been a source of surprise to us that the Fig is not extensively cultivated, and turned to more profitable account; but this is not the only instance in which the prodigal and generous gifts of Nature are lavished upon man in vain. We hear of gentlemen near Mobile, upon the Gulf, who have planted the Fig largely, with the intention of using the fruit as Northern farmers use apples—

for the purpose of fattening hogs; and though, as pomologists, we cannot but deprecate the bringing of this delicious fruit to such “base uses”—still, if at all inclined for the “flesh pots,” we should prefer eating Fig-fattened pork, to that fed on the offal of distilleries, or the filth and garbage of city streets. The Fig tree grows and produces best on a moist, alluvial soil; but readily adapts itself to all varieties of land, altitude and exposure. It is much inclined to sucker, but should be trained to one clean, strong stem, with a low, branching head.

QUINCE.

The Quince is not cultivated among us to any considerable extent, and can only be said to do moderately well—except on heavy and retentive soils, where it seems to succeed nearly as well as at the North.

MULBERRY.

The Mulberry grows wild, and the cultivated varieties succeed everywhere. One of these (Hicks,) produces continuous crops during three months in the year.

ALMOND.

The Almond grows thriflily, but the fruit is almost invariably killed, North of 32°, by the late spring frosts. The Chestnut, Madeira, and Pecan Nuts are more certain; but, as yet, have not received much attention.

GRAPE.

In reference to the Grape, we can only repeat the remark previously made in regard to the Peach, viz: that the South is its “true home,” and that here it grows with a luxuriance, and produces fruit in such an abundance as is seen in no other portion of the Union. We are just now getting into a “grape mania” at the South—planting vineyards largely on our hill-sides and in our old fields—forming Vine Growing Associations, and organizing Joint Stock Companies for the culture of the Vine and Wine making,* &c. And this is not to be wondered at, when we see old and (so called) “worn out” land (unfit for cotton or corn) producing plants, which, at 2 1/2 years from the cutting, average 30 or 40 clusters to the vine; each cluster weighing nearly half a pound, and each acre of vines capable, at this rate, of producing from 800 to 1000 gallons of wine! Quite a considerable quantity of this wine has already been made, and most experienced *connoisseurs* do not hesitate to rank it at least equal to the very best product of the American wine press, and far superior, in all respects, to the adulterated and poisonous trash which we import at a high price, from abroad. All the *native* varieties of Grapes, such as Catawba, Isabella, Warren, Pauline, Lenoir, Scuppernong, &c., succeed admirably; and we have seen, the present season, the Black Hamburg, Golden Chasselas, Sweetwater, Black Chasselas and White Muscat, produce large clusters, and ripen perfectly in the open air, in August. Though only at the beginning, as it were, of this enterprise, we hazard little in predicting that the time is not very far distant, when the culture of Grapes and Wine making will be second in importance only to the growth of cotton, at the South—and that the day is near at hand when every man among us may, literally, “sit under his own vine and fig tree,” and drink his own pure wine, to the utter exclusion of those maddening mixtures which are the prolific causes of so much social and moral misery.

Self-Search.—Read not books alone, but men, and among them chiefly thyself; if thou findest anything questionable there, use the commentary of a severe friend, rather than the gloss of a sweet-lipped flatterer; there is more profit in a distasteful truth, than deceitful sweetness.

*As recently near Mobile, at Citronelle.

DEVEREUX, OHIO AND LENOIR GRAPES.

EDITORS SOUTHERN CULTIVATOR—In the October number of the *Cultivator* is the remark: “The Devereux, Ohio and Lenoir are nearly, if not altogether, the same.” As our common friend, R. Peters, of Atlanta, and myself have been at some pains to get at the truth of this matter, there having been great confusion hitherto, we will give you the results of our investigations. In order to be absolutely certain, Mr. Peters sent to the old Devereux place for cuttings from the original vine, and I have sent twice to Montgomery, Ala., for cuttings and vines of the grape there cultivated as Devereux. We have come to the following conclusions:

1. That there is no really distinct Devereux Grape, the one cultivated under that name at Montgomery and sent to our Pomological Exhibition and described in our report being the Ohio, grown in unusually favorable circumstances, and the original vine, cultivated by Devereux himself, being identical with the Lenoir.

2. The Lenoir and Ohio are totally distinct Grapes. They differ in season—the Ohio being two weeks later than Lenoir. They differ, also, in their habit of bearing,—the Ohio being an enormous bearer and, like most grapes of that character, very subject to rot, while the Lenoir always bears a good, but never an extraordinary crop, and, so far as I know, never rots. The wood of the two vines differ—Lenoir being longer jointed and the bark of a peculiar shade of red, rendering it easy to distinguish it in winter from any other vine. They differ in leaf, also—the leaves of the Lenoir being not generally lobed, while those of Ohio are always distinctly so.

These are, perhaps, points enough to mention; but I will add, that the Ohio is scarcely worthy to be retained in culture, while the Lenoir is not surpassed in value by any Grape we have at this time in general cultivation.

Yours respectfully,

W.M. N. WHITE.

Athens, Ga., Oct. 1, 1859.

THE PEACH BORER—A SURE REMEDY.

EDITORS SOUTHERN CULTIVATOR—In reading the articles in your valuable mon'ly, I am struck with the inquiries made how to get rid of that troublesome little animal (I have never seen one) called the Borer (*Aegeria exitosa*), that destroys our peach trees. Common sense indicates the only effectual remedy. The Borer deposits the egg in the peach tree at, or about, the surface of the earth, the heat and moisture causes the egg to hatch, and then commences the destruction to fine fruit and to the tree. For twenty-six years I have always had a fine orchard and never have any gum exuding from the trees or fruit.

My plan of preventive is very simple, but certain, and whoever will not take the trouble to try it, does not deserve to have good fruit. Remove the earth from the body of the tree about three or four inches deep; have some strips of cotton osnaburgs about 6 or 7 inches wide, wrap these about three or four thicknesses about the body of the tree, touching the earth and tie a piece of string lightly around the top of the cloth, which will be three or four inches above the level of the ground; replace the earth taken from the body of the tree and your work is done and your tree effectually protected from the borer.

I have been asked how often should this be repeated. As often as you find the cloth decayed. If the seasons are very wet and hot, the osnaburgs will decay quicker than in dry seasons. My rule is to examine every tree in the orchard as soon as they have all the fruit gathered from them; and, from 25 years experience, I have never had a borer in the trees that are managed in this way,

when a few that have been intentionally left without the wrapping, have suffered from the borer.

Hoping these hints may be useful to some of your correspondents,

I am, very respectfully, yours,

H. F. GRANT,

Sedgemoor, Glynn County, Ga., August 16, 1859.

WILD GRAPE VINES IN LOUISIANA.—So numerous are wild grape vines in North Louisiana, that the *Louisiana Baptist* advises the making of communion wine from them instead of purchasing adulterated material for this purpose.

SILK COTTON.—The Galveston *News* says Col. David Randon has handed us a sample of his “silk cotton,” of this year’s growth. It is certainly a very superior article, and in length and fineness of staple, ranks next to Sea Island, and is quite equal to the lower grades of Sea Island. We have heretofore noticed this cotton. The first raised by Col. R. was sold in this market at \$100 per bale, and the next at 17 cents per pound. This year he has three hundred acres in this cotton, and we understood from him that it is coming into general use.

All subscriptions to the *Southern Cultivator* commence with the January number.

PRUNING AND TRIMMING THE GRAPE.

We append the following brief directions (with diagrams) for Pruning the Grape, premising that much must yet be left to the judgment and discretion of the cultivator—the differences which are caused by soil, the greater or less vigor of different varieties, &c., &c., making it impossible to lay down a system that will apply in *all* cases. We are indebted to a useful little manual by JOSIAH SALTER, Esq., of Rochester, N. Y., for most of the information which we give below. We will, also, give, in our next, in full, the method of our friend, A. DE CARADEUC, Esq., as set forth in his essay on “Grape Culture in the South.”

It will be understood that we start with the *second year* from the planting of the Vineyard, when the pruning properly commences:

TREATMENT OF VINES THE SECOND YEAR.

Presuming the young vines to have been carefully tended during the first summer’s growth, they will, at the end

of the season, have produced strong canes three to ten feet in length, and will present somewhat the appearance of fig. 1. The fall is the time to prune, and in mild seasons, the month of November or December will be the best period. In pruning this year, the

Fig. 1.

vines must be cut down to the lowest round, plump bud, within two to four inches of the ground, as represented in fig. 2. Set the edge of the knife at the back of the bud, and at one inch above it, and take it off at one clean cut.

As soon as the weeds begin to grow, the soil will want

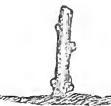


Fig. 2.

stirring, either with the cultivator or hoe, so as to kill the weeds, and stir the soil around the plants. This operation should be repeated as soon as the weeds begin to show themselves again. When the weather begins to set in hot and dry, if a little mulching of littery manure, or short grass, leaves, or anything that will keep the ground partially shaded and moist, be applied around the young vine, it will be of great service.

The vines may be allowed to grow this summer with or without stakes, and trained to one cane. During the summer, small lateral shoots will be produced from the axil of each large leaf on the main cane, which must be cut back to one leaf when it has grown two or three leaves in length. The object of this is to concentrate the sap in the main cane, instead of its being wasted in the laterals, that it may be as strong and well ripened as possible.

Fig. 3 shows a section of a main cane, and the small line on the lateral where it is to be cut off.

TREATMENT OF VINES THE THIRD YEAR.

In November of the third year, the vines are again pruned down to the lowest good bud, within four or six inches of the ground, as presented in fig. 4. If the vineyard has been planted with rooted plants, a few grapes may be had this year, but not more than two or three bunches to a vine.

The vines must now be supplied with stakes, and preparations made for whatever mode of training is to be adopted. Some planters train their vines to one stake, some to two, others to three, and others again to four. Where only one stake is used, the stake is set immediately at the head of the vine, and on the north side of it, as in fig. 5. Where two stakes are used, they are set out as represented in fig. 6.



Fig. 5.

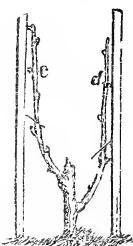


Fig. 6.

Where one stake is used, only two canes must be allowed to grow this (the third) summer, which will, at the end of the season, look like fig. 5; if two stakes be adopted, like fig. 6.

The summer pruning will consist in rubbing out all superfluous shoots, pinching in the laterals, as in fig. 3, and keeping the canes carefully tied to the stakes. It is a good practice to pinch in the leading cane when it has grown four feet in length, or when it begins to turn brown at the bottom. This throws back the sap into the lower buds, and strengthens and assists their swelling and ripening for bearing fruit the next year. Keep the vineyard nicely cultivated and all clear of weeds, and avoid all unnecessary walking and trampling about.

TREATMENT OF VINES THE FOURTH YEAR.

This season the vines will be in good bearing condition, and must be pruned accordingly. It is best, however, not to train them to bows, or horizontally, until the fifth year, as they would be likely to show more fruit than the vine could sustain without exhausting it too much for the year following. In November of this season, cane *a*, fig. 5, is cut back to the small line drawn across it, leaving it about four or five buds, or twelve to fifteen inches, in length. From the buds on this spur, the fruit-bearing shoots will be produced. Cane *b* is cut down to the lowest good bud; the small line drawn across it indicates the place where it is to be cut.

During the present summer, while the spur *a* is bearing fruit, a spur from cane *b* is trained up for fruiting in the year following—say in 1859, for fruiting in 1860. In fig. 6, the cane *c* and *d* are cut down to three or four buds, or eight or ten inches in length, that the two together may not bear much more fruit this season than the longer one in fig. 5.

During this summer, two canes are taken up from each spur, in fig. 6, and allowed to bear fruit. The cane starting from the upper bud is to form the bow for fruiting in the fifth season; and the other is to cut back to form a spur, from which a cane is taken during the fifth season to form the bow for fruiting the sixth season. This is called the renewal system, and is the one generally approved of. The bearing cane is cut down annually after having borne fruit, and its place is annually supplied with a new cane.

In the fall of the fourth year, the vine will have the appearance of fig. 7; and in the spring of the fifth year, after being trimmed and tied to the stakes, that of fig. 8.

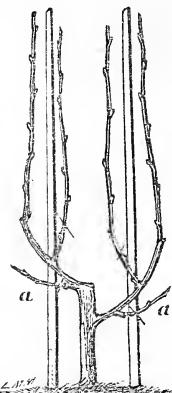


Fig. 7.

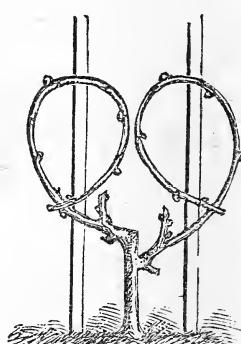


Fig. 8.

The two small branches, *a*, *a*, below the spurs in fig. 7, must be pruned back to where the line indicates; but a new shoot must be carefully preserved from year to year, in case of accident to either of the other canes. The bow should be from five to eight buds in length, according to the strength of the vine. Great care and nice judgment are required in bending the bow. They should be made in the mornings, and in cloudy, moist weather; for when the wood is very dry it is more brittle. The bows should be as round as possible, and all sharp bends carefully avoided, to prevent fracturing the canes, as without this caution, much injury may be done. The object of making the bows is to equalize the flow of sap in all the buds, that the lower buds may start with equal vigor with the upper ones; otherwise, if the canes were left straight, the whole force of the sun would be driven into the upper buds, to the great detriment of those upon the lower part of the cane. [Many persons (ourselves among the number) object to bows, and prefer training upon a wire trellis, as will be shown in the following diagrams.—D. R.]

We here give a few illustrations of training on the wire trellis, as practiced by some of our best cultivators: In the spring of the third year, the vine is cut down to eight or ten inches in height, the posts are set midway between the vines and the wires fixed. The bottom wire may be about eighteen inches from the surface of the earth—the

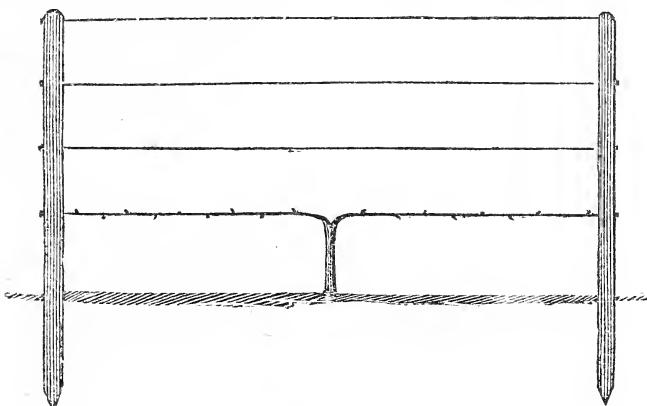


Fig. 9.

top wire, six feet. During the summer, two canes are trained across the wires and let grow to their full length, the laterals being pinched out during the summer, as previously recommended. At the winter pruning of the fourth year, the canes are cut to five feet in length, and tied down horizontally to the bottom wire, as in fig. 9. During the sum-

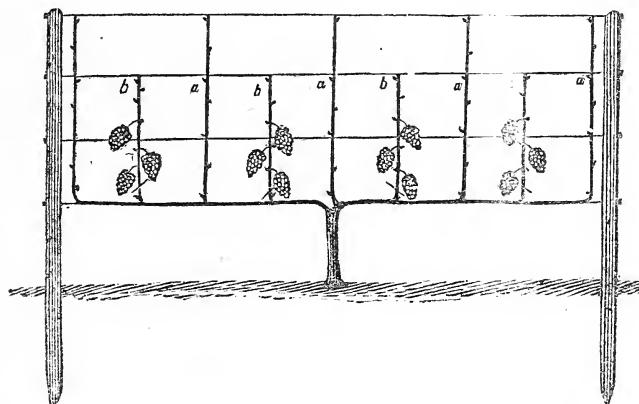


Fig. 10.

mer, shoots must be trained from these horizontal canes, at fifteen or eighteen inches apart, and carried up perpendicularly, and carefully secured to the wires. These shoots will, also, show fruit and cane *b* (fig. 10) may be allowed to bear. When it has grown seven or eight leaves in length, it must be pinched in two or three leaves above the highest

Sec. 1.

Sec. 2.

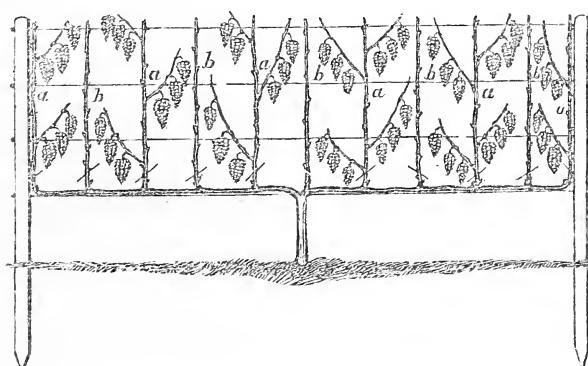


Fig. 11.

bunch. Cane *a* must have all its fruit cut off, and be allowed to grow to its full length, or one or two feet above the highest wire, when it may be stopped. In the spring of the fifth year, cane *b* is cut out to the lowest good bud, and cane *a* is cut back to the highest wire. This summer, cane *a* is allowed to bear fruit, as indicated in fig. 11, and

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cane *b* at the same time is trained up from the spur. In the spring of the sixth year, cane *a* is cut out to the line drawn across it, and a new cane trained up from its spur, while cane *b* is bearing fruit. Thus, no cane is ever allowed to bear twice; new wood is supplied every year for bearing the next, which always gives the finest fruit. Section 1 in fig. 11 shows one mode of trimming the canes, and section 2 another. Section 1 is more applicable to a higher trellis—say six or seven feet—while section 2 is only adapted to about five feet, from its being more heavily cropped. The trellis represented is six feet high from the ground, with bearing canes four and a half feet in length.

Fig. 12 shows another mode of training, the principle of which is the same as the preceding, with the advantage of the vine being more slowly and regularly increased, and without the necessity of such a great bulk of the vine having to be cut away every year. In the former method, all the largest canes have to be cut away every year; while in this we cut away only the small wood, and the great bulk of the vine remains. This mode of training is readily seen from the cut. In the summer of the third year from planting, two horizontal canes are trained to the

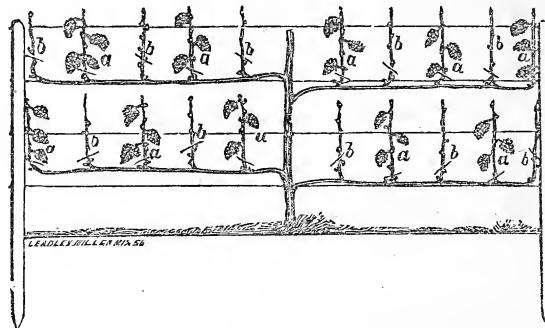


Fig. 12.

bottom wire, and one straight up the middle. In the spring of the fourth season, the upright cane is pruned down to two feet above the horizontal canes. When the vines have begun to grow, and it is sure the three upper buds are safe and secured to the wires, two horizontal and one upright, the other buds lower down the centre cane are rubbed out. The two lower canes are pruned back to five feet in length, the width of the trellis. During this season, while the second tier of horizontal canes are growing, the lower are throwing up shoots (marked *a*, *b*). These shoots will all show fruit; and those marked *a* are allowed to bear, while those marked *b* must have their fruit all cut off. In the winter of the fifth season, these shoots *a*, *b*, are pruned down to the lowest good bud, (indicated by the line drawn across them.) The two upper and horizontal canes are pruned in to five feet, or the width of the trellis, as the lower ones were last season. This (the fifth) season, the shoot from spur *b* is allowed to bear, while that from spur *a* is allowed to rest. Thus, each alternate spur is made to bear and rest each alternate year. If this vine be carried up three tiers high, it will then be about seven feet high from the ground to the top, which is high enough for any man to stand on the ground and work at.

The French, near Fontainbleau, have a cheap way of making very good and durable trellises, for the raising of table grapes upon. They set posts of locust about three or four inches in diameter, two feet in the ground and six out, about eight or ten feet apart. They then tie across the posts strips of white oak or ash, about one inch thick and ten or twelve feet long. These strips are split out in the same way that we split our hoops for flour barrels. They are tied to the post with annealed iron wire, which is bound round and twisted tight,

For prices of wire, &c., see *Answers to Correspondents*.

COTTON PLANTER'S CONVENTION.

At the regular session in June last, of the Cotton Planters' Convention of the State of Georgia, a resolution passed, authorizing the presiding officer, (after consultation with the Vice Presidents) to call the Convention together, should business require it; deeming it important that the Convention should assemble, and having the concurrence of those whom I was to consult, I hereby require the Members of the Convention to meet in the city of Macon, on Wednesday, the 16th day of November, inst., as business of the most urgent necessity requires the action of the Convention. Each member of the Convention is earnestly requested to be present.

It is very desirable that each Cotton-growing County in the State should be represented; therefore, each county is requested to send delegates to the Convention.

Individual planters (not county delegates) may attend and become members of the Convention.

Newspapers friendly to Direct Trade, and to the Convention and its objects, are very respectfully requested to publish this notice.

HOWELL COBB,
President.

KILLING AND SAVING BACON.

EDITORS SOUTHERN CULTIVATOR—I am a young farmer, just commencing life, and I wish to know, among other things, how to save meat. I have thought several times, during the present year, that I would ask the desired information of you or some of the experienced, practical readers of your journal. I have thoroughly overhauled my hams three times since spring and found the skippers in abundance, and, although I removed them entirely, as far as eye could see, by scalding, scraping, &c., each time they seem to gather strength by defeat. My hams I scalded (after smoking), and covered them in sacks. My shoulders were ashed in the old-fashioned way and ranged on shelves. The latter suffered most.

Now, will you or some correspondent, through your journal or otherwise, begin at the beginning, (that is, at the slaughter pen) and continue to the "palate," and tell me how to kill, cure and save my bacon? I will be much obliged for a plan that will do.

Yours, &c., "A LOVER OF HAM."
Pond Town, Ga., August, 1859.

[We ask of our experienced Bacon-savers, a practical article for our December number.—Eds.]

MAKE THE HOMESTEAD BEAUTIFUL.

[The following remarks are the close of an Agricultural Address delivered by the Associate Editor of this journal. As they form a not inappropriate sequent to the article in our October number, "Shall we Improve—or Remove," they may be of interest to our readers. The object of the previous remarks of this Address was to enforce the importance of measures to render our population permanent.]

It will aid in the attainment of this end (the giving permanence to our population) if in addition to making our lands more valuable, we render the Homestead more attractive. Not even the savage is insensible to beauty. A perception of it is as natural to man as any other of his perceptions. It may be dulled or perverted, but, like the moral sense, it can hardly be destroyed. The beauty of an innocent child is sometimes the sternest rebuke to the criminal bent upon crime. The surpassing loveliness of woman often subdues the most rugged nature of men. When the glorious sun, preceded by his gorgeous heralds of illuminated mist and cloud, rises from his morning's couch, or sinks, "like a wearied giant," to rest at eventide, drawing around him the sable curtains of night—when night herself, stilly, placid, serene, extends her starlight canopy over the sleeping world—when gentle spring has smiled away stern winter and covered the earth with her green carpeting, varied and bedecked with her flower hues, imitable by artist's skill, he is less than man whose soul, amid such scenes, is not penetrated with the sense of beauty. Simply natural beauty often presents itself with irresistible power to the natural sense of man. It is the response of one portion of nature to the perfection of another portion of the handiwork of the Great Architect. But if we connect the moral or spiritual with natural beauty, things lovely in themselves become, by the union, still more lovely and are invested with the charm which a holy sentiment creates.

A peaceful, tasteful country Home is an object of interest, even to the incurious traveller. The perfume of flowers, the over arching tree, the well-trimmed hedge, the velvet and verdant lawn, the vine embowered cottage, arrest, for a moment, his journey, compel his attention, induce him to forget the dusty road, his aching limbs and wearied steed. The wrinkled brow is smoothed, the care-worn countenance is lit up with genial good-humor, for the scene before him, by inevitable association, has brought to him cheering thoughts of home and the loved ones there. Such scenes are the gleams of sunshine, by which a kind Providence allows the sombre hue of human life to be enlivened.

The same scene may become a thousand-fold more attractive by associations connected with it. If those that we love have been the agents in creating the beauty which pleases, the affections of the heart are united with the perceptions of the sense and give rise to an attachment which it is difficult to extinguish.

Where good sense directs and prudence controls expenditure, it is virtuous to embellish our Homes. The opinion is thus qualified, as those who advocate ornament, are sometimes inclined to overlook utility. We should not forget the advice of Lord Bacon, who says: "Leave the goody fabric of houses, for beauty alone, to the enchanted palaces of the poets, who build them with small cost."

It is practicable to unite beauty with utility in the arrangement of our habitations. In truth there is "a fitness in things" which requires the union of both to give perfection to either. When this union occurs, it is no exhibition of idle taste, but an adornment of nature often followed by valuable moral results. We abandon, without

regret, the ill-shaped, crazy and comfortless cabin, around which the bare earth burns under the fiery sun, or rank weeds pollute the air with poisonous odors. But it is a very difficult thing to contemplate the abandonment of a comfortable home which our own hands or the hands of those we love have labored appropriately to adorn. It is a meditated violence to nature. It is a laceration of the affections. It is an interruption of our pleasant memories. It breaks the continuity of the life. It is, in a sense, a desertion of those who have gone before us and who now appear to us sensibly in these mute witnesses to their tasteful industry. It contemplates the sacriligious hand of the stranger, tearing, mangling and defacing those beauties to which we have paid an almost religious regard.

With what delicate but truthful sense of these strong feelings of our nature does Milton place upon the lips of our common mother, the words of her lament on leaving Paradise—

"O Flowers!"

That never will in other climates grow—

My early visitation and my last

At even, which I bred up with tender care,

From the first opening bud and gave ye names!

Who now shall rear you to the sun, or rank

Your tribes and water from the Ambrossil Fount?

How many gentle descendants of Eve have been inclined to utter the same lament when, not the "flaming sword," but the love of gain in those to whom their will is subordinate, compels them to leave the Paradise they have created and abandon it to the ruthless stranger? It often occurs, even among men, that the finer feelings connected with home associations overpower the sordid desires. Healthful sentiment conquers unrighteous mammon. The tendrils of affectionate remembrance not unfrequently hold with greater tenacity than the strong grasp of principle. Thus our delicate emotions become more potent for good than even the dictates of a cold, calm judgment.

It is fortunate that wealth is not necessary in the creation of this attachment to home. The cottage may be as attractive to its humble inmate as the costliest villa to its lordly possessor. The humblest dwelling may be the centre of as strong attachment as the proudest mansion, and there may be equal reluctance to leaving our "father's house," whether it be cottage or mansion.

While, then, we enrich our lands, let us not forget this minor indeed, but still valuable aid in securing permanence to our population.

Then, make the Homestead beautiful! Make it beautiful within. Let good books dispense to its inmates, from their affluent stores, the priceless treasures of wisdom and knowledge. Let sweet music lift up its voice and make glad the hearts of those who hear. Let contentment displace anxious care. Let subjected wishes, thoughtful concessions, accordant tempers and mutual forbearance, banish discord and so unite the family that, though many, they shall be one. Let love unfeigned to God and man, so light up the dwelling that hateful vice, impatient of the light, shall flee, abashed, to its congenial darkness. So shall the Homestead be beautiful within.

Make it beautiful without. Young man, lend to this holy purpose the strength of your stalwart arm. Nothing can be more manly. They are coarse and unmanly natures which undervalue gentle sentiment. Let it be yours to perform those acts which, by weaker hand, are incapable of accomplishment. Plant the stately forest tree around the dwelling. If God spares your life, you will sit under its shade in old age, when both yourself and this nursling of your hands have been battered by the storms of many winters.

Matron and maidens of the household, plant vines and

shrubs and flowers. "And as the breath of flowers is far sweeter in the air (whence it comes and goes like the warbling of music) than in the hand," let the perfume of the rose and jasmine and violet, and the thousand floral beauties of the sunny South breathe around you in spring and summer and autumn. Let the unfading evergreen rob winter of his chill, by environing the dwelling with perennial verdure, while the rest of earth is bare and desolate.

Old man, fill each proper place with its appropriate fruit trees—"the graceful legacy of old age to posterity"—a legacy at once a utility and an ornament. How can the trembling hands of age be more suitably employed? What more ornamental than the tempting fruit pendant from the boughs of the well-trained tree? If the "silver cord be loosened or the golden bowl be broken," ere you may taste the produce of your labors, or your eyes be gladdened by the beauty you have created, when you are gone your children and your children's children will bless his thoughtful hand who remembered those who were to come after him.

A well established farm, in whose conduct good order reigns—where "science and practice" are followed with that numerous and beauteous offspring which always attend their union—whose kindly soil, grateful for the husbandman's care, returns to him, from year to year, more than it receives—whose progressive improvement teaches us that we have but begun to learn the fullness of Nature's exhaustless stores—upon whose verdant pastures the bounding colt and lowing kine and blatant sheep rejoice each after its fashion as God made them—whose meadows, glistening with the dew drops, are vocal with the carol of the birds warbling their thanks for the deep shelter of their nests under the tall grass, and with the babling of the brook, shining in the sunbeam like silver, as it merrily dances down its rocky bed towards the quiet river—whose fields wave with wheat, oppressing by its weight the bending stalk, or are clothed with the deeper than emerald verdure of the majestic corn, or are honored by that royal plant, that king of the purity and pacific nature of whose reign this garb of snowy whiteness is an appropriate emblem—and whose habitation, simple, elegant, home-like, lifts its modest front close by the spring—such a farm is an anchor to the children of the household. They become, as it were, children of the soil. To them it is almost animate, by hallowed remembrances, by memories, by innocent employments and by transmutation into its elements of a portion of the mind of those to whom, for generations, it has been a thoughtful care—stern necessity alone will suffer it to become the heritage of the stranger.

If this just regard be paid to Home beauty and comfort and value, when our sons, prompted by the restless spirit of change, or impelled by the desire of more rapid accumulation, shall think of the fertile West and then cast their eyes around them, it will shame them that they have contemplated self expatriation.

We may imagine one of them under the influence of these feelings to exclaim, "My Home, my happy home, my much loved home, my Georgia home, I cannot leave thee. These now fertile lands, my father rescued from sterility. These flowers my mother and my sisters planted—these bowers their hands hands entwined. Here my infancy played. Here my erring boyhood was deterred from vice by my father's counsels, and won to virtue by my mother's smiles. I cannot leave thee. Here will I lieve and here will I be buried. 'God do so to me and more also if aught but death part me and thee!'"

 No man ever talked to a virtuous, high-minded woman one hour without conferring a benefit upon himself.

EARLY COTTON FOR TEXAS, &c.

EDITORS SOUTHERN CULTIVATOR.—I see in a late number of your valuable journal an inquiry from G. W. E., of Texas, for information as to a forward variety of Cotton that will ripen in that country before their annual summer drouths, and as I have some views upon that subject that I think may be interesting and valuable to him as well as others, I ask a small space in your columns to reply to him.

It is a pretty well settled opinion with me from experience and observation and partly from opinions of others, that all seed grown in one climate and planted in another undergo a sort of acclimating process and accommodate themselves, by degrees, to the changed climate to which they have been transferred. In illustration of this idea, I will state, as a pretty well settled fact, that our cotton region is going north every year, and that cotton is now successfully raised in northern latitudes where, twenty or thirty years ago, it would not have matured or ripened at all; and this I attribute to the acclimating process above spoken of—this constant, but gradual, tendency of the seed to accommodate itself to this change of climate. Consequently, I now offer the opinion that, if seed is taken from Southern Texas or Florida and planted in Tennessee or North Carolina (the coldest climate where cotton now grows), it will not ripen; the plant has been accustomed to a longer period to mature, and it is only by slow degrees that it will bear change.

Now, I think, if these positions are true, it is reasonable to conclude that the best place to get seed from, to have an early crop, is from the coldest region where cotton grows—where it, necessarily, has to mature quick or not at all. And, as evidence of this, I will state something in the way of experience. In the spring of 1858, I advised a neighbor of mine to get a few sacks of cotton seed from Murfreesboro, Tenn., and told him I thought he would have earlier cotton than any one else. He tried it, and the result was that the product from that seed ripened three weeks earlier than the balance of his crop. I saw the crop frequently and found it did not grow as large as the balance of his crop, but was well filled and all ripened long before frost.

This year I planted the seed of that crop and am now picking it. It commenced blooming ten days earlier than my other cotton. I have now picked one hundred pounds per acre from it, while my other crop has not five pounds per acre open.

The stalk is large enough this year and as well filled as I ever saw any. No doubt, in a few years, it will be as slow in ripening as ours, but in any country where an early maturity is desirable it might be best to get seed from Tennessee or North Carolina every three or four years. Early maturity, I think, may be obtained, to some extent, by close planting of native seed; and, no matter how rich the land is, I still advise close planting. It might seem foolsh to Red River, Mississippi, and Brazos bottom planters to plant in feet rows and thin to the width of a hoe, but to all such I say, just try one or two acres, which can do no harm, and let the public know the result; and, in advance, I predict an earlier maturity and increased product. I know cotton planted on Chattahoochee River bottoms, rows thirty inches wide, which succeeds well, and ripens earlier than in wide rows. Why is it that the richer the land the more corn you must plant to the acre—the more wheat, and every thing else, but cotton and that less? The truth is, thin planting, in my opinion causes the destruction of more than half the cotton that is killed by frost. Hoping this thought may be of some service to your correspondent and others,

I am, very truly, you s, &c , S. C.

[“S. C.” will oblige us by furnishing the promised article on Fattening Pork.—Ens.]

**CORN CROP AND HOW CULTIVATED IN
Hancock.**

EDITORS SOUTHERN CULTIVATOR—A correspondent, from Lexington, Ga., in your July number, signing himself "F. J. R.," respectfully calls upon Col. Turner, David Dickson, Col. Lewis, or some other gentleman in Hancock county, to give him and the readers of the *Cultivator* our *modus operandi* in cultivating Corn and Cotton, by which the astonishing results mentioned in Col. Turner's annual statements are brought about, &c.

I expected to have seen an article from one of the gentleman specially called on in your August number, but nothing of the kind having appeared from either of them, (Col. T. only referring F. J. R. to a number of gentlemen without giving him the information) and not wishing that any information so respectfully called for should pass unnoticed, I have concluded to give you, in this article, (which, allow me to add by way of apology, is the first from myself intended for publication) as nearly as I can, the manner in which we manage a corn crop, which is called, in Hancock, the Dickson system. Mr. Thomas J. and his brother, David Dickson, both of this county, being the first with us to commence the deep plowing for the preparation, deep planting, wide distance and thorough light cultivation and improved application of manure, by which the yield of pine land has been increased from about ten to twenty and twenty-five bushels per acre, and the increased value of such land from one to eight and ten dollars per acre.

This may seem an extravagant estimate as to increased value, and it will be contended by some that the prosperous times and increased demand for such land has brought about this state of things. I contend that it is the increased production. Then, I say, too much credit cannot be given to David Dickson, Thomas Dickson and their co-laborers in this and other counties in Georgia, who, by their close attention to business and many improvements, too numerous to mention here, have brought about these things and interested the whole country upon the subject of agriculture to a degree heretofore unknown. To all such we bid them God speed, and hope the time is not far distant when the empire State of the South will come to their aid, and by her assistance and the united efforts of her Howard, Lee, Redmond, Dicksons and others, even our worn out hills may be made to yield an abundant harvest; our meadows clothed in the finest grasses, equal to the best cultivated spots on the earth. With ours, the best climate and the best organized system of labor in the world, we ought not only to clothe, but be able to feed the world. These results ought and will be brought about—it is only a question of time as to when it will be done.

We need an Agricultural College where our sons may be taught the science of Agriculture; an Experimental Farm, which the State is abundantly able and ought to furnish, and many other things which the planters of Georgia ought, of right, to demand. But to the point.

We use for breaking up our land, a wrought iron turning plow of our own manufacture, known here as the Allen Plow, which cuts about eight inches, and usually from five to seven inches deep. Our orders to the plowmen are to put the plow in as deep as the mules can pull it—two mules are better than one, and some of us use three. The land being broken up broadcast, we now lay off our rows seven feet wide, upon the horizontal plan where required, each hand having a stick seven feet long and using it frequently, so as to keep the rows as nearly the same width as possible, using a scooter or shovel for

the first and following in the same furrow with a large and very long shovel, selecting the strongest and best mules or horses on the farm for this work, sometimes two to the plow. This opens a deep, wide furrow (we think the deeper the better), then drop the corn in the bottom of the furrow, usually, about three feet apart—on good land, a little nearer. Some of our planters use a fork to mark the distance between the grains, so that each hill may be the exact distance from the other. Cotton seed, when used, is put on each side of the corn, preferring to scatter them a little in the bottom of the furrow. We apply guano in the same way. We scatter stable manure, when used on corn, in equal quantities along the furrow. We generally use this manure for cotton. We drop from two to four grains to the hill (Mr. Dickson drops but one) and cover with an iron tooth harrow, two teeth about eight inches apart at the front or nearest part, running on the edges of our big furrow and filling it not half full. I have always obtained better stands by this than any other mode of covering.

Re-planting, when done at all, should be done as soon as the first planting is up.

Next comes the thinning, which we always prefer doing as soon as the corn is safe from the depredations of birds and insects, and always before the first plowing, usually selecting some day when the land is wet; putting all hands at it. Our reason for thinning before plowing is, that the roots have less dirt on them and are easier gotten up, and we do not want to disturb the roots of the corn after the first plowing.

We have now arrived at the first plowing, which we are never in a great hurry to commence, preferring the corn to get up sufficiently to allow the dirt to be thrown around it, so to cover up every particle of grass that be up, which, by the advantage of the deep furrow, may be easily done, using for the purpose, as well as for all subsequent plowings, a common buzzard winged sweeper from twenty to twenty-four inches wide, five times in a row, slays all the grass and weeds and leaves the furrow in which the corn is planted, not yet filled.

In about twenty days, if possible, we get back to commence the second plowing. Our land being loose and light and plowing all light since our planting was done, the mules have recruited in flesh and spirits and must now travel. We have on our twenty-two inch sweepers, with the wings turned up, and run, again, five times to the row, using for the last, or middle furrow, a shovel or smaller sweep, set so as to run deeper than the other furrows. In this furrow we plant peas, dropping from 10 to 12 in a place, about the same distance as the corn, covering them with the same harrow used for covering corn. We never fail making a pea crop.

We have now our corn plowed the second time and peas planted with eleven furrows (seven feet rows), and twenty days having rolled round, we come now with our same twenty-two to twenty-four inch sweepers, set so as to run just as light as possible—the roots must not be broken now. Four times in a row finishes the corn and peas beautifully, and leaves the land about as level as when we commenced planting. Never having broke but few of the roots, which are broadcast over the ground from the surface to the bottom of the first breaking, thousands of them cling to the subsoil, as much as to say, why don't you break deeper, that we might have more moisture and reach down farther in order to obtain more of the salts of the earth, that we may return to you the best possible yield as a full reward for your labor?

In a few days after our last plowing, we follow with hoes and cut up whatever bunches of grass and weeds that may have been left with the plow. This is the first and only hoeing we usually do, except it may be on very rough land.

I have thus given you, in a very scattering manner, I admit, our *modus operandi* of making corn on loose, light land; stiffer clay land we prepare in the same way, sometimes having to use a scooter instead of the turning plow for breaking—plant in the same manner. This kind of land usually becomes hard from the heavy spring rains, and requires to be broken again with scooter or shovels the first plowing, after which we cultivate in the same way as before mentioned. If poor pine land, with a moderate quantity of cotton seed or seventy pounds of guano to the acre, can be made to produce more than 25 bushels by any other system, then we of Hancock want to know it. This we claim to have done under the system here given.

And now, that I have concluded this (my first and it may be last) article for the *Cultivator*, how shall I subscribe myself—Rebeck, Cupid, F. J. R., A. B. C., or some other fictitious name? No. I prefer to take the chances of such criticism and witicism as may be heaped upon me. If I have said nothing that is sensible, I have certainly said nothing criminal. I give you, as I think all others ought, my real name. A. J. LANE.

Granite Hill, near Sparta, Ga., 1859.

P. S.—I hope that some of the gentlemen specially called on or mentioned in Col. Turner's article, in your August number, will give "F. J. R." the way in which we manage the cotton crop.

ORDER OVERDONE.

"ORDER is Heaven's first law" and a good thing in any family; but some people are painfully particular and neat, as the following from *Blackwood* abundantly proves:

I once spent a week in one of these well-ordered families; it was a great punishment to me; I hope, also, in some degree, to my entertainers. The iron rule of that house was, "a place for everything and everything in its place." I wasn't. The disgrace my somewhat vagrant habits led me into there was dreadful. The very first morning, I opened Peter-familias's newspaper, which was always laid in one particular spot upon the breakfast table, never to be violated by any hand but his. There I stood, with my back to the fire, conning the out-spread sheet and nodding a cheerful good morning to my host, when he entered. I had the hardihood even to read him (out of his paper!) the last Indian despatch—very politely, as I thought—and to request his assistance to decipher the possible place intended by a dozen letters which the telegraph clerk appeared to have selected at random. To do him justice, he bore this inroad on his rights with tolerable outward composure; but I was formally made aware, on the first opportunity, by Mrs. P., of the outrage I had committed, and made to feel as uncomfortable as I deserved. Then I left my handkerchief on the drawing-room floor, one glove on the library table, another in the governess' parasol, (which, certainly, was not the place for it, and how it got there, I have no conception) and was formally presented with each article separately, and an account of its discovery in the presence of the whole family assembled for dinner.

One day, the whole household was under strict cross-examination as to who had come into the drawing-room with dirty shoes. I was the culprit, of course, but I was too great a coward to confess; besides, the lady knew perfectly well who it was, but was polite enough to entertain the fiction that such conduct was impossible in any well-bred person; it must have been one of the children or the housemaids, of course; and the whole investigation was intended for my solemn warning and improvement, just as they used to whip a little boy vicariously to strike terror into misbehaving little princes.

Then the terrible punctuality which made slaves of all

of us, and kept me always looking at my watch, and always afraid of being late for something, as, indeed, I was once for dinner, in spite of all my precaution—four minutes and a half exactly. Shall I ever forget it? If they had only the charity to sit down quietly without me—if they had put me off with no soup, cold fish, and the last ragged cut of the mutton—if they had sent me to bed without any dinner at all, as once happened to me when I was a little boy, or inflicted upon me any other reasonable or humane form of punishment; but, no, there they were, all waiting for me in the drawing-room, all standing up, the door set wide open, and the head of the family opening fire upon me at once, before I was well inside it, with "Now, Mr. ———, will you take in Mrs. P.?" Of course, I hammered and stammered over an apology—"quite unintentional," and so forth. "Oh! of course, they knew it must be quite unintentional—only"—in a semi-whisper—"Mr. P. did not like waiting for his dinner!"

There was an abominable child, too, in that family, the very incarnation of premature method and order. All the other children had redeeming points of carelessness and destructiveness about them; and we soon established a sort of freemasonry among ourselves, as fellow-culprits, trying to keep each other out of scrapes as much as possible; they conveying to me private warnings as to how soon the prayer bell would ring in the morning, and furnishing me with much valuable secret intelligence as to the enemy's weak points, and the interpretation of the laws of the Medes and Persians, to whom I was then in captivity; and I, finding substitutes for impounded pencils, mending a broken Cupid, who carried the wax matches in his quiver, brushing the boy's clothes after birds' nesting, "before mama saw them," and actually cutting up the ribbon of my eye-glass into shoe-strings, for one young lady who was generally in trouble on that score. But as to the imp I speak of, he was irreproachable. If I left the door open, he got up and shut it—not quietly, you understand, but officially and reproachfully.

If I took down a volume from its shelf, and it left my hand for a moment, if he could get at it, it was up in its place again before I knew what had become of it. I took courage one cold morning, there being no one but he and I in the room, to stir the fire, and put the poker, when I had done with it, under the grate, (which I take to be the natural place for a poker,) when up jumps this well-behaved little monster, and arranges it by rule and measure, where he had been told it ought to be. I take credit to myself for the very great forbearance—he and I being alone—that I checked the inclination to punch his head with it. Is it excusable in any rational beings to put themselves under such a long penance as this, and to bring up their children, and to force the poor, unhappy stranger whom they get within their gates to do likewise?

SIMPLICITY OF DRESS.—Loveliness never appears to so good advantage as when set off with simplicity of dress. No artist ever decks his angels with feathers and gaudy jewelry, and our dear human angels, if they would make their title to that name, should carefully avoid ornaments which properly belong to Indian squaws and African princes. These tinseltries may serve to give effect on the stage or upon the ball-room floor, but in daily life there is no substitute for the charm of simplicity. A vulgar taste is not to be disguised by gold and diamonds. The absence of true taste and refinement of delicacy cannot be compensated for by the possession of the most princely fortune. Mind measures gold, but gold cannot measure mind. A modest woman will dress modestly, and really refined and intellectual women will bear the marks of careful selection and faultless taste.

 Passions are the gales of life; it should be our care to see that they rise not into a tempest.

LOW PRICE OF SOUTHERN LANDS---ITS Causes and Remedy.

EDITORS SOUTHERN CULTIVATOR---In the May number of the *Southern Cultivator*, an inquiry was propounded by a correspondent as to the cause of the low price of lands at the South. I also notice an excellent contribution in the August number of the *Cultivator*, from an Arkansas correspondent, upon the same question, assigning its causes and remedy.

While endorsing fully the views of the last correspondent referred to, I propose offering other views, embracing different causes which have a greater influence upon the question. I am glad that the inquiry has been made and hope to see the views of other men of more experience, observation and ability than myself.

It is, doubtless, known to every one that the Southern planter does not realize as large profits from his lands per acre as the Northern farmer. This fact being conceded, it will be necessary to inquire into the causes operating to produce this difference. In the first place, there is a difference in the class of operatives, or persons who cultivate the soils of the two sections. At the North the lands are cultivated (particularly the large farms) by hired labor. The large comparative number of poor white people, and the ever increasing tide of foreign immigration, that settle in the Northern States, who are most of them by force of necessity, compelled to perform farm labor, are the two causes that make farm labor cheap to the landed proprietor of the North. And it is an obvious fact, that the less the labor, or rather the cheaper the labor that will produce a given amount of corn wheat or cotton, the greater profits will result to the farmer; consequently, enhance the value of the land in that ratio. At the South, the planter has a permanent interest or capital in his operatives, or slaves; consequently, all losses from death, sickness, or wearing out of land is a discount from the profits of the farm. Such is not the case, however, with the Northern farmer. If one of his operatives die he can supply his place with another "hired servant" from that very numerous class around him, and there is no loss of capital, no deduction from the profits of the farm. We see, then, that the farmer at the North has greatly the advantage in the comparative cheapness of labor and, as a consequence, greater profits per acre, which is one of the causes that make lands at the North more valuable than Southern lands.

Another cause of the great value of Northern lands lies in the difference of the products of the two sections. The principal staples of the North are corn, the smaller cereals and, we might add, hay. These staples can be produced with one-half, or, perhaps, one-fourth of the labor per acre that the great staple of the South can.

It is a remarkable fact that the Northern farmer realizes more money from his hay crop than the Southern planter does from his cotton crop. See the vast difference in point of labor required to produce these two commodities. The hay crop needs no sowing nor plowing—the only labor expended is in reaping and carrying to market. It is no unusual thing at the North (and particularly in the Northwest) for the hay crop to net the farmer \$20 to \$30 per acre, if mowed and sent to market, while the west lands are reserved for corn and the small cereals.

Now let us compare these results with cotton planting. The Southern planter who expects to make money from raising cotton, cannot plants more corn or wheat than will barely do for the support of his family and stock, because the wheat crop especially comes in conflict with his cotton. Then, cotton must be taken as the standard to compare the pecuniary results of farming at the North and South.

I would not fall far short of the truth, if I were to put the average yield of the cotton crop in the entire Southern

States, at 700 lbs. seed cotton per acre; putting it at 9 cents as an average price for the last 5 years, we have only about \$16 per acre, to compare with at least \$20 per acre for the hay crop.

Your esteemed correspondent, in the August number, spoke of the exhausting influences of cotton culture upon the soil as compared with any other product. I will not enlarge upon this point, but will add another fact, showing the greater expense attending cotton culture. The cotton planter raises no mules, and the extravagant prices he pays Kentuckians, coupled with the fact that if he tends a large cotton crop he must have almost as many mules as hands, carries up farming expenses considerably. We are one of those that believe that cotton planting is not remunerative, and we further believe that the fact of cotton not bringing its real value, is the prime cause of lands at the South not bringing their intrinsic worth. The exhausting influence of the system of cotton culture and the greater comparative amount of labor required to produce it, makes it, on the whole, less remunerative than anything the farmer can raise. Had we the time and you the space to furnish us in your columns, we could show, by ocular process of reasoning, based upon solid facts, that cotton will not pay short of 15 cents.

Let Southern farmers plant less cotton, until they force speculators and manufacturers to give something in the neighborhood of the worth of their cotton. By doing this, the increased value on cotton would more than compensate them for the diminution in the amount made, while an additional amount of corn and wheat would find a healthy market, or improve greatly the condition and number of stock and hogs, the latter of which is greatly under par in some of the planting States, so much so that numbers of planters, are supplied with bacon from the grain growing States. There are other causes operating upon the question, but our time and your patience, doubtless, will not permit of their discussion.

J. R. R.

Russellville, Ga., August, 1859.

SIGNS OF PROSPERITY.—The following lines contain as much truth as poetry:

Where spades grow bright, and idle swords grow dull;
Where jails are empty, and where barns are full;
Where church paths are with frequent feet outworn;
Law courtyards weedy, silent and forlorn;
Where doctors foot it, and where farmers ride;
Where age abounds and youth is multiplied;
Where these signs are, they clearly indicate
A happy people and a well-governed State. —

Galls or Gullies made by Water.—Planting willows in "galls" and gullies, to hide their nakedness, and prevent their enlargement, as well as render them profitable, is strongly recommended. The Osier may be used for this purpose profitably, because it may be cut for basket manufacture, and will, at the same time, be an ornament to the field, if kept within bounds properly.

Louisiana Sugar.—The New Orleans *Crescent* says, regarding sugar the talk is, that the present prospects are highly flattering. With the same season, or rather the same kind of weather from this time until November, that we had last year, a crop of 440,000 hogsheads is confidently expected. We agree in the expectations, and with a very late season 444,000 hogsheads may be expected.

It is a beautiful custom in some Oriental lands to leave untouched the fruits that are shaken from the trees by the wind; these being regarded as sacred to the poor and the stranger.

ASPARAGUS---ITS CULTURE, &c.

EDITORS SOUTHERN CULTIVATOR—In offering a few remarks in reply to your querist, as to the *modus operandi* of Asparagus Culture, it may be said, to preserve the vigor of this vegetable, it is necessary that the soil be deeply pulverized, say three feet. This may be accomplished by the ordinary method of spade subsoiling. Take out a trench three or four feet wide to the depth required; in the bottom of said trench place a layer of manure; then, from your second, throw a layer of earth, and so on, till the second trench has required the proper depth, and trench after trench, till the desired quantity of ground is completed. One two horse load of manure to every four square yards of surface will not be too much. Should the soil be of a retentive nature, a free application of sand is essential, and should be applied during the process of trenching. The sand is best taken from a brook or stream where it is washed from impurities, while, at the same time, it has the advantage of being more sharp than pit sand and, consequently, better suited to the object in view, viz.: to render the soil porous.

Although the Asparagus plant be strictly a perennial, I believe rootlets to have but a periodical existance. After a lapse of years (the number of which I am unable to say) the older rootlets perish, giving place to those of more recent birth, those successional rootlets issuing directly from the neck, or collar of the plant. Hence, the reason for an early decline in heavy, impervious soils. All vegetable physiologists agree, that the stem and branches of plants are in perfect uniformity with the capacity of the roots, that capacity being increased or diminished, according to the circumstances wherein they are placed. Seeing, therefore, that a number of rootlets annually proceed from the collar of this plant, we must try to preserve the permeability of the soil, in order that they may freely penetrate to a proper depth. The ground should be prepared early in fall and allowed to settle till spring, which is the best time to transplant—just when the embryo buds begin to move. The planting may be performed by having the ground neatly leveled; stretch a line 18 inches from the margin; dig a trench along the line 14 inches deep; with one hand hold the plant by collar, allowing the roots to hang free, and just deep enough that the crown of the plant be 4 inches beneath the surface level, with the other hand draw in a little earth (enough to keep the plant in its place), and proceed to the end of the row, when the whole may be filled in and made level, as before.

The plants may be 18 inches in and between the rows. Three such rows will make a convenient bed; if more be required, leave four feet after every third row, which will serve as paths to walk on while gathering or cleaning the same.

One year old plants are preferable to older ones, from the fact that they can be moved without injury to the roots, while, I observe, they always make the finest Asparagus. In November, when the beds are cleared of the stems, weeds, &c., the surface may be loosened by means of a spade-fork, the whole covered to the depth of 3 or 4 inches with partly decomposed manure, allowing it to remain till the return of the vegetating period, when the greater portion may be removed.

My experience is, that by following this method you will cut first class Asparagus for many years—by cutting when one inch above the ground, you will have a palatable article at least five inches in length. It may, however, be desired to have a commodity of greater length—which, by the way, is always of inferior quality. A good way, then, to raise the monster is to plant in single rows 5 or 6 feet apart. When the growing season is about to commence the earth is taken from the spaces between the rows and formed into ridges over the plants,

much in the same manner as that of forming Celery ridges. When the cutting season is over the earth is carefully worked back to its original place—thus bringing the roots of the plants within the proper influence of sun and air so essential to the well-being of all vegetable life.

Your most obedient, &c.,
J. PENDER.

Columbus, Ga., 1859.

CONSERVATIVE vs. DESTRUCTIVE PLANTERS

EDITORS SOUTHERN CULTIVATOR—There are, at least, two permanent classes of planters in the South—the one *conservative*, the other *destructive*. These two classes are brought to view by the *Savannah Republican*, whose comments upon the fact that the Central (Ga.) Railroad had proposed to carry Guano and other fertilizers at a price just sufficient to defray the expense of transportation—you published in your July number.

That paper says:—"It is a well ascertained fact that the older portions of Georgia, or rather those which have been settled longest; for all, we presume, are of equal age, are more thrifty and productive to-day than they were twenty years ago."

Here is the mark of the conservative planter. He is following in the train of the destructive planter, and is building up what has been torn down. He is making the exhausted plains and the old red hills to groan under the golden harvest. He is staying the tide of emigration; increasing the permanent wealth of the South; fostering her peculiar institutions, and causing the old home of his departed sires to bloom with its primeval beauty and freshness.

Such wise heads and noble hearts; such conservative planters, never receive the grateful praise from a Southern public which their worthy enterprise deserves. They are annually adding more valuable slave territory to the cotton fields of the South—contradicting the notion that we are to have no more slave territory. Let all the planters south of Mason and Dixon's line do battle under the conservative agricultural banner, and our institution is a settled fact. Dismiss at once and forever the destructive element in your agricultural creed, cease to weep for another South to ruin, and our "land of flowers" will soon be happy, prosperous and renowned.

Yours, &c., G. D. HARMON.

Milliken's Bend, La., August, 1859.

"A THING OF BEAUTY IS A JOY FOREVER."

EDITORS SOUTHERN CULTIVATOR—From the days of Adam and Eve to the present time, it has been the employment of bards, poets, historians and writers of every class, to sing and proclaim the attractions, attributes and praises of the beautiful, more especially of the human family. Of this we do not complain—it is all right. But have the ugly no claims upon notoriety? We think they have; more especially as there are so many more of them than of the beautiful; besides, we are sure you will agree with us that they should, occasionally, have the privilege of appearing in print as well as the more comely. With these opinions, we take the humble liberty of giving you a specimen from this part of the country.

We have a man in our neighborhood who is so ugly, his wife will not permit him to wipe his face on the towel when he washes it, so the only alternative he has is to wring it dry. As an especial favor, she sometimes permits him to use the door mat, but declares he mangles it up horribly on the corners and angles about his face.

We would give you a specimen or two from the semi-nine gender, but have a premonitory tingling about our ears which admonishes us, just now, to keep dark.

Yours, *

September, 1859.

Domestic Economy and Recipes.

TO MAKE BUTTER IN FIVE MINUTES WITH out a Churn.

A correspondent highly recommends the following recipe: After straining the milk, set it away for about twelve hours, for the cream to "rise." (Milk-dishes ought to have good strong handles to lift them by.) After standing as above, set the milk, without disturbing it on the stove; let it remain there until you observe the coating of cream on the surface assume a wrinkled appearance, but be careful it does not boil, as should this be the case the cream will mix with the milk and cannot again be collected. Now set it away till quite cold and then skim off the cream, mixed with as little milk as possible. When sufficient cream is collected proceed to make it into butter as follows: Take a wooden bowl, or any suitable vessel, and having first scalded and then rinsed it with cold spring water, place the cream in it. Now let the operator hold his hand in water as hot as can be borne for a few seconds, then plunge it in cold water for about a minute, and at once commence to agitate the cream by a gentle circular motion. In five minutes, or less, the butter will have come, when, of course, it must be washed and salted according to taste; and our correspondent guarantees that no better butter can be made by the best churn ever invented.

To those who keep only one cow, this method of making butter will be found really valuable; while quite as large a quantity of butter is obtained as by the common mode, the skim-milk is much sweeter and palatable. In the summer season it will usually be found necessary to bring the cream out of the cellar (say a quarter of an hour before churning) to take the excessive chill off; in winter place the vessel containing the cream over another containing water to warm it; then continue to agitate the cream until the chill has departed.

Before washing the butter, separate all the milk you possibly can, as the latter will be found excellent for tea-cakes. Butter made in this manner will be much firmer, and less oily in hot weather than when made in the ordinary way.

TO MAKE CREAM CHEESE.—Take a quart of cream, or, if not desired very rich, add thereto one pint of new milk: warm it in hot water till it is about the heat of milk from the cow; add a small quantity of rennet (a table-spoonful is sufficient); let it stand till thick, then break it slightly with a spoon, and place it in a frame in which you have previously put a fine canvas-cloth; press it slightly with a weight; let it stand a few hours, then put a finer cloth in the frame; a littled powdered salt may be put over the cloth. It will be ready for use in a day or two.

NEW METHOD OF CURING MEAT.—A process has recently been discovered and a patent secured by Messrs. Paddock & Marsh, of Cincinnati, by which meats of all kinds can be cured and rendered fit for any foreign market in ten minutes time. The process is simple and effective. As soon as the animal is killed, and before being skinned, salt is injected through the arteries, and almost immediately the whole animal is impregnated with it. Numerous experiments were tried before the object was fully accomplished, but it is believed that now the process is perfected, and the proprietors have entered largely into the packing business at Houston, Texas. Specimens of beef killed and cured within ten minutes, with the thermometer at 80 degrees, have been sent on and exhibited in Cincinnati, perfectly sweet, and equal to the best meat cured in the ordinary manner.

DEATH TO THE BUGS.—The following remedy is said to be infallible: Take two pounds of alum, bruise it and reduce it nearly to powder; dissolve it in three quarts of boiling water, letting it remain in a warm place till the alum is dissolved. The alum water is to be applied hot, by means of a brush, to every joint and crevice. Brush the crevices in the floor of the skirting board if they are suspected places; whitewash the ceiling, putting in plenty of alum and there will be an end to their dropping from thence.

PRESERVING BUTTER.—The farmers of Aberdeen, Scotland, are said to practice the following method of curing their butter, which gives it a great superiority over that of their neighbors:

Take two quarts of the best of common salt, one ounce of sugar, and one ounce of common saltpetre; take one ounce of this composition for one pound of butter, work it well into the mass, and close it up for use. The butter cured with this mixture appears of a rich marrowy consistency, and fine color, and never acquires a brittle hardness nor tastes salty. Dr. Anderson says: "I have eaten butter cured with the above composition that had been kept for three years, and it was as sweet as at first." It must be noted, however, that butter thus cured is to stand three or four weeks before it is used. If it is sooner opened the salts are not sufficiently blended with it, and sometimes the coolness of the nitre will be perceived, which totally disappears afterwards.

CURE FOR SPRAINS.—In the Paris hospitals a treatment is practised that is found most successful for a frequent accident, and which can be applied by the most inexperienced. If the ankle is sprained for instance, let the operator hold the foot in his hands, with the thumbs meeting on the swollen part. These, having been previously greased, are pressed successively with increasing force on the injured and painful spot for about a quarter of an hour. This application being repeated several times, will, in the course of a day, enable the patient to walk when other means would have failed to relieve him.

CLEANING SILK.—The following is said to be an excellent recipe for cleaning silks: Pare three Irish potatoes into thin slices and wash them well. Pour on them a half pint of boiling water, and let it stand till cold; strain the water and add to it an equal quantity of alcohol. Sponge the silk on the right side, and when half dry, iron it on the wrong side. The most delicate colored silk may be cleaned by this process, which is equally applicable to cloth, velvet or crêpe.

TO WASH COLORS.—For washing fine and elegant colors, the *Scientific American* advises ladies to boil some bran in rain water, and use the liquor cold. Nothing can equal it for ease upon color and for cleaning cloth.

TO DESTROY FLIES.—To one pint of milk add a quarter pound of raw sugar, and two ounces ground pepper; simmer them together eight or ten minutes, and place it about in shallow dishes. The flies attack it greedily, and are soon suffocated. By this method, kitchens &c., may be kept clear of flies all summer without the danger attending poison.

TO TAKE INK OUT OF LINEN.—Our readers will be interested to know that ink spots may be effectually removed from linen by a simple and ready process. Take a piece of tallow, melt it, and dip the spotted part of the linen into the tallow; the linen may then be washed, and the spot will disappear, the linen remaining uninjured.

SOUTHERN CULTIVATOR.



N. ORB, SO. N.Y.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XVII.

AUGUSTA, GA., DECEMBER, 1859.

NO. 12.

WILLIAM S. JONES, Publisher.

D. REDMOND and C. W. HOWARD, Editors.

See Terms on Cover.

Plantation Economy and Miscellany.

HINTS FOR THE MONTH.

THE PLANTATION.—The picking of Cotton should be finished at the earliest possible day, and the balance of the crop packed and sent forward to market, so that the planter and his hands may have a little leisure before commencing the next year's labors. Cotton planting, necessarily very laborious, is made much more so by the dilatory and procrastinating habits of most of our planters, and a reform in this matter should begin at once.

Corn land of present year, intended for the same crop next year, should be broken up thoroughly and deeply; and if stiff, bedded up and exposed to the ameliorating influence of the winter's rain and frost. Plow across the rows of the furrows of last year, and subsoil at least to the depth of 10 or 12 inches. Land cannot be made too deep and rich for corn—it is a gross and exacting feeder. Clear up, also, some good, new, fresh land for the coming corn crop.

Wheat, Rye, Oats and Barley may, also, be sown yet, but the sooner the better. Note what has been heretofore said about "thorough preparation of the soil," and pulverize as fine and *deep* as possible. Apply manure, also, in liberal quantities, if you can possibly obtain it.

Fruit Trees of all kinds should be set out during December and January, if possible. For directions, see articles in previous numbers, and for the proper selection of trees consult the Catalogues of the various Southern Nurserymen, whose advertisements will be found on the cover. One good Southern seedling fruit tree, worked on a native Southern stock, is worth half a dozen of dwarfish, slow-growing, foreign trees.

Vineyards and Grape Arbors should be planted now as soon as possible. See articles on Grapes in previous numbers, or consult the treatise of Mr. DE CARADEUC and others.

Hedges of all kinds should now be planted. See list of plants and directions, in previous numbers.

With the closing year, close up all accounts; open new books, and make a fresh start with the new year which is approaching.

THE GARDEN.—Sow Cabbages, Turnips, Parsnips, Lettuce, Carrots, Radishes, Onions (black seed,) Parsley, &c. Haul plenty of manure on your garden, plow it under, or, better, still, have it well spaded in, burying under all enriching animal or vegetable matter. Cover up the Globe Ar'ichoke with litter and pine boughs. Dress and manure your Asparagus beds, not forgetting to give them a liberal top-dressing of salt before spring. Save all old bones, soap-suds, dead leaves, decaying vegetables, &c., &c., and make up into compost heaps for future use. Plant choice Fruit Trees, selecting varieties which are known to be adapted to the South, and begin pruning your fruit trees and grape vines [See articles on Pruning the-Grape in present and preceding numbers.] Our Southern Nurserymen have paid especial attention to the propagation of choice varieties, and will probably be able to supply all orders.

Strawberry Beds, for spring bearing, may, also, still be planted, according to directions given in previous numbers.

THE ORCHARD.—Propagate all the choicest and best varieties of *Southern* Fruits. The Quince, the Fig, the Grape and the Pomegranate grow readily from cuttings, when planted in moist, shady ground. Now is the best time for planting Orchards.

Look over your bearing Peach trees, and where the exuding gum betrays the presence of the borer, apply boiling water, as one of the best remedies for destroying him. We have poured as much as 14 gallons of boiling water around the stem of small peach trees, after which they grew beautifully. Remove the earth from around the stem of the tree as recommended in our article on the "Pomological Resources of the South," in October and November numbers, which see. Try, also, (after removing or destroying the borer) the effect of a few handfuls of China Tree berries, placed in a cavity around the "collar" or trunk of your trees. These berries are very obnoxious to all insects, and may, possibly, keep them away hereafter.

THE OLD FARM HOUSE.

In a little grove of shade trees
Stands a farm house, brown and old,
With a wealth of vines around it,
Gemm'd with flowers of red and gold;
By the path that makes a circle
Of white sand around the lawn,
Grow sweet timothy and clover,
Rosy as a June day dawn.

Around its door pale morning-glories,
Jump-up-johnnies, dahlias, pinks,
Cluster—concentrated beauties,
Married by a thousand links;
Links of love, the works of nature's
Mystery of handicraft;
Links of glory, through which fairy
Argosies of perfume waft.

And the gate that swings before it,
And the fence as white as snow,
Stand on variegated cushions,
Which the sun-fire sets aglow,
Crowning them with many colors—
Yellow, purple, green and blue—
As if rainbows there had fallen,
Melted into rarest dew.

On its roof the greenest mosses,
Catch the shadows from the trees;
On its sides red honey-suckles
Make their curtesies to the breeze;
And the ever-nervous willows,
Standing near the garden's bound,
Throw a web of shade fantastic
On the clover-mantled ground.

O'er the well an arch of grape vines,
Formed with heaven's directed care
Chains the shadows to the water,
Making cool the summer air:
And a tiny church, its steeple
Piercing through a bower of leaves,
Is a sure and sacred refuge
Where the wren her carol weaves.

[*New York Sunday Times.*

"STATE AID" TO AGRICULTURE, &c.

We conclude the article commenced our last number, setting forth the laws in aid of Agriculture passed by the Legislature of the State of New York:

AGRICULTURAL SOCIETIES.

We give the act for the incorporation of Agricultural Societies, passed at the last session of the Legislature, which will enable Societies to be far more easily organized than heretofore.

AN ACT TO FACILITATE THE FORMATION OF AGRICULTURAL AND HORTICULTURAL SOCIETIES.

[Passed April 13, 1855: three-fifths being present.]

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

§ 1. Any ten or more persons of full age, citizens of the United States, and a majority of whom shall be citizens of this State, who shall desire to form a county or town agricultural society, in any county, town, city or village in this State, may make, sign and acknowledge, before any officer authorized to take the acknowledgements of deeds in this State and file in the office of the Secretary of State, and also in the office of the county in which the business of such society is to be conducted, a certificate, in writing,

wherein shall be stated the name and title whereby such society shall be known in law, the particular business and objects of such society, the number of trustees, directors, or managers to manage the same, and the names of such trustees, directors, or managers thereof, for the first year of its existence.

§ 2. Upon filing a certificate, as aforesaid, the persons who shall have signed and acknowledged such certificate, and their associates and successors, shall thereupon, by virtue of this act, be a body politic and corporate by the name stated in such certificate, and by that name they and their successors shall and may have succession, and shall be persons in law, capable of suing and being sued, and they and their successors may have and use a common seal, and may change and alter the same at pleasure; and they and their successors, by their corporate name, shall, in law, be capable of taking and receiving, purchasing and holding real estate for the purposes of their incorporation, and for no other purpose, to a sum not exceeding the sum of twenty-five thousand dollars in value, if a county society, and one thousand dollars in value, if a town, village or city society; and personal estate for like purposes, to an amount not exceeding ten thousand dollars, if a county society, and three thousand dollars, if a town, village or city society, and to make by-laws for the management of its affairs, not inconsistent with the laws of this State, or of the United States.

§ 3. Any person who shall pay into the treasury of said society such sum as the by-laws of said society shall require, of not less than ten dollars, may be a life member of said society, with all the privileges of an annual member thereof.

§ 4. Any person who shall pay into the treasury of said society, annually, a sum not less than fifty cents, as prescribed by the by-laws of said society, shall be a stockholder, and entitled to all the privileges and immunities thereof.

§ 5. The officers of said society shall consist of a President and at least of one Vice-President, a Secretary and Treasurer and six Directors. The President and Vice-President, Secretary and Treasurer shall be elected annually, and the first year there shall be elected six Directors; they shall be divided by lot into three classes, the first class to serve one year, the second class two years, and the third class three years, and at the expiration of each term there shall be elected two Directors to serve three years, and all vacancies that may occur to be filled only for the term made vacant. The election of all officers to be by ballot of the stockholders or members. The Board of Managers shall consist of the President, the first Vice-President, Secretary, Treasurer and six Directors, a majority of whom shall constitute a quorum for the transaction of business, and it shall be the duty of said officers to manage the property and concerns of the said society, as will best promote the interest of agriculture, horticulture, and the mechanic arts; and they shall hold annual fairs and exhibitions and distribute premiums to the best and most meritorious exhibitors in these several departments.

§ 6. There shall be but one county society in any one county in this State, nor shall there be more than one society in any town therein; but any two or three towns may join and organise a society for the same; but the organization of such society by an association of towns shall not be held to prohibit the organization of any town society or either one of such town societies.

§ 7. The said society may, in case the uses and conveniences thereof so require, upon application to the Supreme Court of the district wherein said county, at the time of such application, shall be situated, obtain the requisite order and power to sell, from time to time, the whole or any part or parts of its real estate; the granting of such order to be in the discretion of the Court, and such

application to be made only when authorized by said society, at annual meeting thereof, by a vote of not less than two-thirds of the legal members of said society present at such meeting, notice of the intention to vote for such application having been published in three of the newspapers printed in said county once a week for three months preceding such annual meeting.

§ 8. The officers of any society organized under the provisions of this Act, shall be jointly and severally liable for all debts due from said society contracted while they are officers thereof, provided a suit for the collection of the same be brought within one year after the debt shall become due and payable.

§ 9. The President, Secretary and Treasurer of said society shall annually, on or before the first day of February, make out and transmit to the Secretary of the State Society at Albany, a statement of the transactions of said society for the year, giving a full detail of the receipts and expenditures thereof, with a list of premiums awarded, and to whom and for what purpose, and the same shall be subscribed and sworn to by said officers, before some person authorized to take the acknowledgment of deeds, as being a just and true statement within the spirit, true intent and meaning of this act.

§ 10. Every society formed under this Act shall possess the power and be subject to the provisions and restrictions contained in the third title of the 18th chapter of the revised statutes.

§ 11. All societies formed under chapter three hundred and thirty-nine of session laws, passed June eighth, one thousand eight hundred and fifty-three, are hereby declared to be as valid as if formed under this Act for the year one thousand eight hundred and fifty five and may recognize under this law at any time.

§ 12. This Act shall take effect immediately.

STATE OF NEW YORK, }
Secretary's Office. }

I have compared preceding with the original law on the file in this office, and do hereby certify that the same is a correct transcript therefrom and of the whole of said original law.

Given under my hand and seal of office, at the city of Albany, this thirtieth day of April, in [L. S.] the year one thousand eight hundred and fifty-five.

A. G. JOHNSON,
Dep. Secretary of State.

CIRCULARS FROM THE DEPARTMENT—FORM OF APPLICATION TO THE STATE, &c.

STATE AGRICULTURAL ROOMS, }
Albany, 18 . }

Sir:—The Executive Committee have been much embarrassed in preparing their Annual Report to the Legislature, by the neglect of the officers of many county societies, in furnishing a statement of their proceedings, and of the state of agriculture in their respective counties. It is hoped that the officers will make their reports for the transactions, *immediately* after their Annual Fair, giving a full account of their proceedings and of the state of agriculture generally; and the proceedings of their annual meeting in a subsequent return, with a list of the officers chosen for the ensuing year.

[Note] These returns are *in addition* to those required to be made to the Comptroller, as provided in the annexed circular from the Comptroller's Office.

The returns should be directed to the Secretary of the State Agricultural Society.

Respectfully yours,

B. P. JOHNSON, Cor. Secretary.

To
President County
Agricultural Society. }

COMPTROLLER'S OFFICE, }
Albany, Feb., 1859. }

Sir:—The imperfect and insufficient manner in which many of the officers of the county agricultural societies have made the annual statements and accounts, required to be transmitted to this office, has induced the Comptroller to forward to you for their information and guidance, the accompanying extracts from the laws of 1841 and 1855. By the law of 1855, the President, Secretary and Treasurer of each Society are, on or before the first day of February, to make out and transmit to the Secretary of the State Agricultural Society a statement of the transactions of the Society for the year, giving a full detail of the receipts and expenditures thereof, with a list of the premiums awarded, and to whom and for what purpose, and the same shall be subscribed and sworn to by said officers.

By the second section of the law of 1841, the manner in which moneys are to be drawn upon the affidavits of the President and Secretary is given: The Secretary of the State Agricultural Society will transmit to the Comptroller the reports received by him in pursuance of the law of 1855, with his certificate that the said reports are in conformity with said act.

The laws undoubtedly contemplate that the foregoing requirements should be fully complied with by each society, before the Comptroller will be authorized to draw his warrant in its favor for any further portion of the State appropriation; and also, that the society shall have raised, by voluntary subscription, independent of any previous balance or subscription, and to be expended for the benefit of the society in the same year, a sum at least equal to that to be received from the State. This must be made to appear by the affidavits of the President and Treasurer, which must accompany the draft of the President for the State appropriation—forms for each of which are appended.

Very respectfully
your obedient servant,

FORM OF AFFIDAVIT OF PRESIDENT AND TREASURER, AND ORDER TO DRAW MONEY.

County, ss:

A. B., President, and C. D.,
Treasurer of the County Agricultural Society, being duly sworn, depose, and each for himself says, that during the present year and since the last annual account rendered to the Comptroller, there has been raised by voluntary subscription, for the use and benefit of said society, and actually paid in or secured to be paid, the sum of dollars, exclusive of any previous subscription, or unexpended balance of any former year. Dated at the day of 185 .

Subscribed and sworn
this day
of 18 ,
before me,

Treasurer of the State of New York:—Pay to the order of C. D., Treasurer of the county agricultural society, pursuance of the Act, chapter 169, Laws of 1841.

Dated at the day of 18 .

A. B.,
President of the County Agricultural society.

AN ACT TO PROMOTE AGRICULTURE, PASSED MAY 5TH, 1841.

§ 2. When the New York State Agricultural Society, and any county agricultural society now formed, or which may hereafter be formed in this State, or the New York Institute, in the city of New York, shall raise, by volun-

tary subscription, any sum of money, the President and Treasurer shall make and subscribe an affidavit of the facts of the formation of such society, and of their having raised a certain sum, specifying the amount thereof, which affidavit shall be filed with the Comptroller of this State, who shall draw his warrant on the Treasurer for a sum equal to the amount of such voluntary subscription, no, however, exceeding the amount to which such county or said State society would be entitled, according to the apportionment aforesaid.

CHAPTER 425.

AN ACT TO FACILITATE THE FORMING OF AGRICULTURAL AND HORTICULTURAL SOCIETIES,
PASSED APRIL 13, 1855.

§ 9. The President, Secretary and Treasurer of said society, shall, annually, on or before the first day of February, make out and transmit to the Secretary of the State Agricultural Society at Albany, a statement of the transactions of said Society for the year, giving a full detail of the receipts and expenditures thereof, with a list of the premiums awarded, and to whom, and for what purpose, and the same shall be subscribed and sworn to by said officers, before some person authorized to take the acknowledgment of deeds, as being a just and true statement within the spirit, true intent, and meaning of this Act.

FORM OF AFFIDAVIT TO BE ANNEXED TO REPORT TO BE MADE TO THE SECRETARY OF STATE AGRICULTURAL SOCIETY.

County, ss:

A. B., President; C. D., Secretary, and
E. F. Treasurer of Agricultural Society, being duly sworn, depose, and each for himself deposes, that the annexed statement of the transactions of the society, the receipts and expenditures of the same, and the list of premiums awarded, and to whom, and for what purpose, are, in all respects, just and true.

Dated at the day of 18.

Sworn and subscribed,
this day
of , 18 ,
before me,

STATE FAIR AT ATLANTA--PREMIUMS, &c.

WE have only room for the leading premiums in the more important departments:

FIELD CROPS.

| | |
|---|------|
| Best Bale of Cotton, Wm. S. Grogan, DeKalb county, Georgia—Silver Cup, | \$10 |
| Best Lowland Corn, on two acres, 77 bushels an acre, D. H. Hutchinson, Lumpkin county—Silver Cup, | 10 |
| Best Upland Corn on two acres, Gen. G. P. Harrison, Chatham county—Silver Cup, | 10 |
| Best Bale Timothy Hay, J. H. Dennis, Fulton county—Silver Cup, | 15 |
| Best Bale Native Hay, J. H. Newton, Athens, Georgia —Silver Cup, | 10 |
| Best Barrel Chinese Syrup, J. A. Hayden, Atlanta—Silver Cup, | 10 |
| Best Crop of Sweet Potatoes on one acre, 533 bushels, J. B. Hart, Green county—Cup, | 5 |
| Best Fleeces of Wool, G. C. Sproull, Cass county—Cup, | 5 |
| Best Bale Peavine Hay, Dr. R. M. Young, Cass county —Cup, | 5 |
| Best Bale of Fodder, J. H. Newton, Athens—Cup, | 5 |

SAMPLES OF FIELD CROPS.

| | |
|---|------|
| Best Bushel Irish Potatoes, D. H. Hutchinson, Lumpkin county—Cup, | \$ 5 |
| Best Bushel Field Peas, J. S. Thompson, Walton county —Cup, | 5 |
| Best Bushel Red Wheat, J. D. Farran, Whitefield county—Cup, | 5 |

| | |
|---|-----|
| Best Bushel White Wheat, J. C. Sproull, Cass county —Cup, | \$5 |
| Best Bushel Oats, N. A. Crawford, Milton county—Cup, | 5 |
| Best Bushel Barley, J. S. Thompson, Walton county—Cup, | 5 |
| Best Bushel Bread Corn, Daniel Johnson, DeKalb county—Cup, | 5 |
| Best Bushel Stock Corn, Joseph Pit's, DeKalb county—Cup, | 5 |
| Best Bushel Sweet Potatoes, J. B. Hart, Greene county —Cup, | 5 |
| Best Bushel Grass Seed, John Bowman, Hall county—Cup, | 5 |
| Best Sample Leaf Tobacco, John Ficken, Atlanta—Cup | 5 |

FIRST CLASS—HORSES OF ALL WORK.

| | |
|---|------|
| Best Stallion over 4 years old, R. H. Lampkin, Oglethorpe county—cup, | \$15 |
| Best Mare, 4 years old and upwards, A. Bacon, Monroe county, Tennessee—cup, | 10 |
| Best Brood Mare and Colt, J. B. Tanner, Clayton county —cup, | 10 |
| SECOND CLASS—BLOOD HORSES. | |
| Best Stallion, over 4 years old, (Sligo) J. B. Magee, Troup county—cup, | \$15 |
| Best Mare and Colt, A. J. Persons, Coweta county—cup, | 10 |

MORGAN HORSES.

| | |
|--|------|
| Best Stallion, four years old, (Clive) George H. Waring, Habersham county—cup, | \$20 |
| Best Brood Mare, (Fashion,) Shelton Oliver, Oglethorpe county—cup, | 10 |

GEORGIA RAISED HORSES.

| | |
|---|------|
| Best Pair Matched Horses, H. R. J. Long, Athens, cup, | \$10 |
| Best Single Harness Horse, W. P. Anderson, Marietta —cup, | 10 |
| Best Saddle Horse, J. H. Jackson, Greene county—cup, | 10 |

HEAVY DRAFT HORSES.

| | |
|--|------|
| Best Heavy Draft Horse, Ariosta Appling, Marietta—cup, | \$10 |
|--|------|

FIFTH CLASS.

| | |
|--|----|
| Best Jack J. S. Thompson, Gwinnett county—cup, | 10 |
| MULES. | |

| | |
|---|------|
| Best Pair Mules, J. W. Nesbit, Milton county—cup, | \$10 |
| CATTLE. | |

| | |
|--|------|
| Best Bull, 4 years old, W. C. Penn, Jasper county—cup, | \$10 |
| Best Bull 3 years old, Dr. R. M. Young, Cass county—cup, | 10 |

| | |
|---|---|
| Best Bull 2 years old, R. Peters, Atlanta—cup, | 5 |
| Best Bull 1 year old, Mrs. T. C. Elder, Campbell county —cup, | 5 |

| | |
|--|-----|
| Best Cow 4 years old, R. Peters, Atlanta—cup, | 10* |
| Best Milking Cow, Rev. R. B. Lester, Atlanta, cup, | 10 |

| | |
|--|----|
| 2d Best Milking Cow, R. Peters, Atlanta—cup, | 10 |
| Best Heifer, 2 years old, W. P. Mylun, Cass county —cup, | 5 |

| | |
|--|----|
| Best Heifer, 1 year old, R. H. Moody, Tennessee—cup, | 5 |
| Best Working Oxen, R. Peters, Atlanta—cup, | 10 |

FAT CATTLE.

| | |
|--|------|
| The Executive Committee would call the attention of stock growers to the pen of Cattle exhibited by Rev. C. W. Howard of Cass county, which have been raised entirely upon pasture, Summer and Winter, having never been fed with hay or grain, and award a special premium of a Silver Pitcher, | \$20 |
| SHEEP. | |

| | |
|--|------|
| Best Pen of Sheep, (Cotswold,) Rev. C. W. Howard, Cass county—cup, | \$10 |
| Second Best Pen of Sheep, (Merino,) J. C. Sproulls, Cass county—cup, | 10 |

| | |
|---|----|
| Third Best Pen of Sheep, J. C. Sproulls, Cass county—cup, | 10 |
| Best Pen of Cashmere Goats, R. Peters, Atlanta—cup, | 10 |

SWINE.

| | |
|---|------|
| Best Boar, R. Peters, Atlanta—cup, | \$10 |
| Second Best Boar, Rev. C. W. Howard, Cass county—cup, | 5 |

| | |
|--|----|
| Best Sow, R. Peters, Atlanta—cup, | 10 |
| Second Best Sow, R. C. Johnson, Atlanta—cup, | 8 |

| | |
|---|---|
| Third Best Sow, R. Peters, Atlanta—cup, | 5 |
| HOUSEHOLD DEPARTMENT. | |

| | |
|--|-----|
| Best half dozen Bacon Hams, A. G. Holmes, Gwinnett county—cup, | \$5 |
| Best half dozen Shoulders, A. G. Holmes, Gwinnett county—cup, | 5 |

| | | |
|--|------|--|
| Best half dozen Sides, A. G. Holmes, Gwinnett county —cup, | \$ 5 | Best Flour barrel, F. J. Daniel, Atlanta—cup, \$ 2 |
| Best five pounds fresh Butter, Mrs. A. G. Ware, Atlanta —cup | 5 | Best Tight barrel, F. J. Daniel, Atlanta—cup, 3 |
| In this article there was very close competition. The samples exhibited by Mrs. Harris and Young of Cass, Miss Henry and Mrs. Holmes of Gwinnett, Mrs. Oliver of Oglethorpe, Miss J. A. Howard and Mrs. Peters of Atlanta, were excellent and seldom equalled. | | Best Wine Cask, 125 gal., F. J. Daniel, Atlanta—cup, 5 |
| Best bushel Dried Apples, Miss S. Thompson, Walton county—plate | 2 | Best Bureau, F. A. Williams, Atlanta—cup, 5 |
| Best bushel Dried Peaches, Miss S. J. Henry, Gwinnett county—plate, | 2 | Best Seash and Blinds, Pitts & Cook, Atlanta—cup, 5 |
| Best and largest collection of Jellies, Jams, &c., Mrs. S. A. E. Means, Oxford—cup, | 10 | Best Pannel Doors, Pitts & Cook, Atlanta—cup, 5 |
| 2d Best collection of Preserves, Jellies, &c. Mrs. T. B. Daniel, Atlanta—cup, | | Best Self-loading Wheelbarrow, W. H. Manning, Atlanta, 5 |
| Best 10 pounds Soft Soap, Mrs. C. R. Hanleiter, Atlanta—plate, | 5 | Mrs. Reid and Langdon, Premium for improvement in Sewing Cords, by Sewing Machine, 5 |
| Best 10 pounds Hard Soap, Mrs. J. B. Hart, Greene county, | | MANUFACTURES OF LEATHER. |
| Best Jar Leaf Lard, Mrs. B. F. Reynolds—cup, | 5 | Best Pair Boots, J. Beusse, Athens, Ga.—cup, \$ 5 |
| Best Loaf Light Bread, Mrs. A. W. Stone Atlanta—plate, | | Best Buggy Harness, J. M. Lanier, Alabama—cup, 5 |
| Best Butterscotch Candy, R. H. Humphrey—cup, | 3 | Best and largest collection of Kip, Sole and Harness Leather, Maltby, Cleveland & Co., Lawrenceville, 10 |
| DOMESTIC MANUFACTURES. | | |
| Best Woolen Coverlid, Mrs. M. H. Sappington, Troup county—cup, | \$ 5 | Best half dozen Calf Skins, Maltby, Cleveland & Co., Lawrenceville—cup, 5 |
| Best Carpeting, Mrs. H. Williams, Troup county—cup, | 5 | Best Brogans, Eddleman & Banks—cup, 5 |
| Best Domestic Ginghams, Miss S. J. Henry, Gwinnett county—cup, | | Best Shoes for Ladies, Dimick & Mix, Atlanta, cup, 5 |
| Best Bolt Jeans, Miss Jane Howard, Kingston, Cass county—cup, | 5 | MACHINERY. |
| Best Fair Cotton Socks, Miss Jane Howard, Kingston, Cass county—cup, | | Best Force Pump, J. M. Lunquest, Griffin—cup |
| Best Hearth Rug, Mrs. R. M. Young, Cass county—cup, | 5 | Best Stationary Steam Engine, Atlanta Machine Works (Dunning agent)—cup, 10 |
| Best Pair Woolen Blankets, Mrs. T. J. Smith, Hancock county—cup, | 5 | Best Steam Boiler, Atlanta Machine Works—cup, 10 |
| WORKS OF THE SHOP AND FACTORY. | | |
| Best bolt Flannel, James A. King, Roswell, Cobb county—Cup, | \$ 5 | Best Horse Power, Barth & Niclai, agents for Messrs. Wilson, Athens, Ga. As this power was given a Premium last year, it cannot take it again; though we consider it the best one on exhibition. |
| Best Linsey, J. A. King, Cobb county—Cup, | 5 | Best Printing Press, T. S. Reynolds, Atlanta—cup, 15 |
| Best Ga. Plains, J. A. King, Cobb co.—Cup, | | Best Cotton Gin, Clemmons & Brown, Columbus—pitcher, 25 |
| Best Bolt Cassimere, J. A. King, Cobb county—Cup, | 10 | Second Best Cotton Gin, Thomas Wynne, Richmond county—cup, 10 |
| Best bale Kerseys, J. A. King, Roswell—Cup | 10 | HORTICULTURE. |
| Best bale Osnaburgs, Waynman Mills, Upson county—Cup, | | Best collection Table Apples, Peters, Harden & Co., Atlanta—cup, |
| FARMING IMPLEMENTS. | | |
| Best Cotton Press, O. P. Perry, Augusta, Pitcher, \$20 | | Best collection of Grapes, R. C. Johnson, Atlanta—cup, 5 |
| Best Wheat Fan, J. H. Dougherty, Calhoun—Cup, | 5 | Best collection of Pears, Peters, Harden & Co., Atlanta—cup, 5 |
| Best lot of Agricultural Implements, J. W. Bloodworth, Griffin—Cup, | \$ 5 | Best Late Keeping Apples, (Shockley,) Peters, Harden & Co., Atlanta—cup, 5 |
| Best Sub Soil Plow, J. W. Bloodworth, Griffin, | | Best collection of Seedling Pears, Peters, Harden & Co., Atlanta—cup, 5 |
| Best Cotton Planter and Grain Drill, M. M. Hall, agt., Milledgeville, | 5 | Largest and Best collection Southern Seedling Apple Trees, P. G. Berkman & Co., Augusta, Ga., 5 |
| Best Ploy for all work, (Adams') M. M. Hall, agent, Milledgeville, | 10 | Largest and Best collection of Peach Trees, P. G. Berkman & Co., Augusta, 5 |
| Best Churn, M. M. Hall, agent, Milledgeville, | 10 | Largest and Best collection of Pear Trees, P. G. Berkman & Co., Augusta, 5 |
| Best Single Mould-board Plow, J. C. Williamson, Wilkes county, | 1 | Largest and Best collection of Evergreen and Hot-House Plants, P. G. Berckmans & Co., Augusta, 5 |
| Best Iron Stock Plow, W. A. Hearn, Wilkes county—Cup, | | Best collection Basket Willow, Peters, Harden & Co., Atlanta—cup, 5 |
| Best Cultivator, W. C. Holmes, Barnesville—Cup, | 5 | WINE. |
| Best Double Mould-board Plow, J. P. Harris, Byharro, Mississippi—Cup, | 5 | Best half dozen Bottles Catawba Still Wine, vintage 1858, Charles Axt, Crawfordville, Ga.—cup, \$10 |
| Best Sweep, J. P. Harris, Byhaylia, Miss.—Cup, | 5 | JAMES CAMAK, Secretary, Southern Central Agricultural Society. Atlanta American. |
| Best Cast Iron Plow, H. W. Rande, Ala. Cup, | 10 | FARMING IN ENGLAND AND FRANCE.—S. HOWARD, Esq., of the <i>Boston Cultivator</i> , is now visiting Europe, and makes the following comparisons between these two countries: |
| Best Double Mould-board Plow, J. B. Hart, agt—Cup, | 10 | In England the fields are mostly square, divided by green hedges, and each is devoted to a particular crop. In France, the land is cultivated in narrow strips, without fences, except by the roads. It is not uncommon to see strips of wheat, oats, lucerne, clover, and the different kinds of vegetables, each of a rod in width, along side each other, and all belonging to the same person. In England, the numerous flocks and herds add to the landscape. In France, you may travel for miles without seeing a sheep or a cow. England strives to produce all the meat she can, and by doing so increases the fertility of her soil. France keeps the smallest number of domestic animals she can get along with, and, consequently, decreases her productive powers. England raises turnips and other root crops largely, France raises hemp, tobacco, and the cereal grains. The crops of the two countries show the immense superiority of the English system. |
| Best Cotton Side Plow, N. Warlick, Alabama, | 2 | The very grass of England is more luxuriant. |
| Best Straw Cutter, Clarke & Lewis, Atlanta—Cup, | 2 | |
| Improvement in Plow Gear, N. Warlick, Ala., | 2 | |
| Best Corn and Pea Planter, J. M. Mitchell, Webster county, | 2 | |
| Best Cotton Scraper and Improved Plow Stock, J. W. Ryles, Marietta, | 2 | |
| Best Wheat Drill and Sower, John Cunningham, Greensboro, | 2 | |
| Best Turning Plow on Rooter Stock, R. S. Williams, Greene county, | 2 | |
| For improved foot to Rooter stock, W. J. Griffith, Marietta, | 2 | |
| MANUFACTURES OF WOOD AND IRON. | | |
| Best R. R. Bar Iron, Atlanta Rolling Mill Co.—cup, | \$ 5 | |
| Best Buggy, W. H. Henderson, Jonesboro—cup, | 10 | |
| Top Buggy, J. J. Ford, Barnesville, Ga.—cup, | 5 | |
| Trotting Buggy, J. B. Bray, Rome, Ga.—cup, | 5 | |
| Buggy, T. C. Howard, Atlanta—cup, | 5 | |

 DURING a very pleasant visit which we lately made to St. Simons' Island, our kind host, Col. HAZZARD, promised to give his mode of making Sea Island Compost and erecting Tabby Houses; and we thankfully acknowledge the receipt of the following article, which, we doubt not, will interest many of our readers on the sea coast and elsewhere:

SEA ISLAND COMPOST--"TABBY" HOUSES, &c.

MR. REDMOND--Dear Sir--You request me to furnish you with a statement of the mode of making our valuable compost, which is far better adapted to our soil and climate than all the foreign fertilizers we have tried. I mentioned to you my experiment with Kettlewell's preparation, which burnt up the rice it was applied to; strewed along the drill by the spoonful, as directed; while a portion of the same field, manured with our compost, grew over five feet high, and yielded 32 bushels to the acre, which, I am told, is a fair average on river swamp as this was highland rice.

Our mode of making compost is to gather up all the little people on the place, as soon as the leaves begin to fall from our extensive groves about the buildings, making it quite a jubilee to them; after they have swept up and carried off to the cow-pen in wheel-barrows all the leaves fallen at that time, they are treated to a lunch. This forms the nucleus with the marsh grass from the stable every morning; and as soon as the labor can be spared, men are employed in mowing our Blackrush and Marsh Grass, at from 6 to 9 cords per hand per day, as the tides suit. A cart with a long slat body, a yoke of oxen and a boy takes off about a cord per load, driving into the hard marsh, filling and scattering it over the pens, then a layer of the most succulent weeds, such as Poke, "Jimson" (*Datura Stramonium*), and all other weeds, mud, cotton seed, leaves and lime, alternately. When it is required to be applied to cotton land (as it has accumulated since the first operation of leaf-gathering with our little people, as a source of amusement to them and profit to us, some 4 or 5 feet deep of solid, well rotted manure in every pen you saw,) it is cut through and carried off in carts by oxen and strewed along deep furrows run in each old cotton alley by a double mould board plow and two oxen, another small plow following, throwing up a furrow on each side, forming the bed and retaining the rich grasses to become the future pabulum of our fine Sea Island Cotton.

For corn, it is applied and the land prepared different, being flush-plowed, raked off the distance the corn is to be planted 3, 4 1-2 and 5 feet, holes chopped deep, partly filled with this compost, partially covered with the hoe, corn planted and the covering finished.

You wish, also, to know how our "Tabby" Houses are made, which you saw during your late agreeable visit to West Point. We have a vast deposit of oyster shells, as you saw, cast away on every side of the Indian wigwams, the former inhabitants never imagining, in their wildest visions of the future, that a race of men would drive them to the utmost limits of the West and use these very shells to erect fine buildings and construct the most permanent, beautiful, level roads for their comfort; but such is the case.

The Tabby buildings you saw, are built out of these very materials. We burn the lime on the spot, cart the shells along the line of buildings, and to one part of shells, we add one part of lime, one part of sand, and water to mix the whole, forming two two-inch planks into open moulds the length of the wall you wish to build; the thickness being regulated by head pins and nails to secure the moulds in their places with two gauge pins at each end and two or more in the middle, according to the length of the

wall, then fill in with the shell mortar, pestled well all the while with a round piece of wood with a handle in the centre of one end; hence the advantage of carrying up the walls of more than one house at a time, which gives your Tabby time to dry and consolidate in the moulds before knocking out the pins and removing them.

I have thus endeavored to answer your inquiries as succinctly as possible, earnestly hoping they may be satisfactory to you and interesting to the readers of your valued work, and wishing you the utmost success in your laudable efforts to improve the literature, and extend the agriculture of our noble State, and the most complete realization of your sanguine expectations of establishing vineyards and wine making throughout the State,

I am, dear sir, yours truly,

W. H. H.

St. Simons' Island, Ga., Sept., 1859

KILLING HOGS AND SAVING BACON.

To a "LOVER OF HAM"--I will give the mode which I have practiced for a long time very successfully. The hams I cure, generally sell in Savannah at 15 to 18 cents and are considered equal to Westphalia. Kill the hogs before day, and when they are drained remove them to the smoke house; or, which is better, kill them at 4 or 5 P. M., and get them to the smoke house by nightfall. The object is to keep the meat from the sun and flies. Cut up the meat, cutting off the hams first, so that while some of the hands are engaged in cutting up the other meat, the hams can be attended to; sprinkle a small teaspoonful of powdered saltpetre on each ham, and rub it in with the fingers, or make a solution of saltpetre and swab the hams with it; then add a tablespoonful, or more, of red pepper to each ham and rub it in; then add a tablespoonful of good brown sugar or good New Orleans syrup to each ham and rub that in; let the hams lay till the other meat is cut up and rubbed with salt and laid away; then take the hams and rub them with salt and lay them away single, on boards.

The next morning or the next night take up the hams and rub them with salt thoroughly and put them in tight tubs (molasses hogsheads cut in two) till the end of the fourth week; then hang them up to smoke. The shoulders may be treated in the same way--the middlings need not be. Smoke with tan bark or green hickory wood; kindle with light-wood chips. Have some hickory ashes prepared in dry weather and kept in a barrel in the smoke house, and when the meat is taken down (early in March) rub it all with ashes; lay away the hams by themselves in tubs or boxes; between every layer of hams put four sticks, made from old oak boards or seasoned wood. Pack the shoulders by themselves in the same way, and the sides or middling the same. Overhaul the meat the 1st of May and 1st of July, and rub with ashes again if need be.

This is very troublesome; but every lover of ham must take pains in order to satisfy his delicate appetite.

D. P.

Mount Zion, Hancock County, Ga., 1859.

How to PREVENT SORE SHOULDRERS IN WORKING HORSES.—An exchange says, the plan we have tried and never found to fail, is to get a piece of leather and have it cut into such a shape as to lie snugly between the shoulders of the horse and collar. This fends off all the frictions, as the collar slips and moves on the leather and not on the shoulders of the horse. Chaffing is caused by friction; hence this remedy is quite a plausible one, and is much better than tying slips of leather, or pads of sheep skins under the collar.

THE MUSIC OF THE WHEELS.

OUR correspondent, "A. K. E." (see October number, page 336) who prefers the music of the spinning jenny to that of the piano-forte, will, doubtless, be pleased to read the following tribute to his favorite instrument, from the pen of Mrs. D. G. Foss, in the *Boston Cultivator*

In ecstasy let others praise.
The organ's lofty peal;—
To me there is no music like
The dear old spinning-wheel.

Its gentle buzzing greets my ear
With soft, lulling sound,
Like the faint echoes of the woods
Where waterfalls resound.

How many memories of the past,
Clust'ring around it cling.
And make it to my throbbing heart
A dear, time-honored thing!

Our mother, ere the household band
Had left the household hearth,
Mingled the music of the wheel
With many an evening's mirth.

And later, in her green old age,
She rung out many a chime—
Rising and falling with each step,
Her cap-border beat time!

She taught us that our lives might be
Like the uneven thread;
Peace to her ashes! for she sleeps
Now with the silent dead.

And soon the spinning-wheel will pass,
Its music soon be o'er—
Oh! who'll appreciate its worth
One generation more?

COTTON GINS---COTTON SEED FOR HOGS.

EDITORS SOUTHERN CULTIVATOR—In your number for June I observe one of your correspondents inquires of you the best make of cotton gins. I have used, for the ginning of my last crop, the Roller Gin, and find it infinitely superior to any gin I have ever tried. They are made in the city of New York. D. McCombs, of Memphis, Tenn., is the agent. Using this gin it makes no difference whether you pick the cotton clean or with the bolls and fragments of the lint intermixed, as the teeth only take hold of the cotton and do not even scratch the boll. I have thrown into the gin breast a handful of nails (when there was no cotton in the breast) and at the ordinary speed of the machinery, after fifteen minutes test, there was no scratch on the nails, nor were the teeth of gin at all injured.

My gin was used in the Mississippi bottom throughout the last season and, although I ginned wet and rotten cotton, it did not nap at all, and my cotton was increased in value at least one cent per pound by the use of this gin, as compared to any one of the Carver gins. With a 12 foot cog wheel and 8 foot band wheel this gin will gin out four bales of cotton per day, and will require four mules to pull the machinery. Cost, \$360.

I have been in the habit of feeding cotton seed to my hogs for years, and have never lost one. My theory is (and my practice has confirmed me in my opinion) that it is not the hull of the cotton seed that kills the hogs, but an overdose of cotton seed oil. Every planter is aware that if a lot of hogs has access to a pile of cot-

ton seed and, also, access to a grass lot, that they may feed on the seed with impunity, but they will certainly die if they eat the seed alone. Watch a hog at a seed pile and you will see that he chews the seed, swallows the oil and rejects the hulls and lint.

He fills his stomach with oil and a very little of the substance of the cotton seed, and dies as any animal would if he were fed alone on oil of any kind; but give him grass or other food to distend the stomach and he lives. My stock feeder is directed to take, as near as he can guess at it, a handful of seed to each hog, and instead of throwing the whole mass into a pile, he throws the seed handful by handful with some force against the ground, which causes the seed to scatter and separate the one from the other. The hogs, consequently, are forced to take it up seed by seed, as they do corn, and they chew and swallow hulls, lint and all. They have a bulk of food duly proportioned to the oil.

I have fed my hogs in this way, occasionally a feed of corn by way of variety, for several years, and I am satisfied I have never lost one by it; but, on the contrary, my stock has always thriven remarkably well.

Respectfully yours,

Woodford, Panola county, Miss., Aug., 1859.

H.

SAVING SWEET POTATOES.

EDITORS SOUTHERN CULTIVATOR—"J. A. A.'s plan of saving sweet Potatoes" is so different from ours, that I have thought it would be interesting to you and profitable to your readers to give you a mere sketch of our method.

We never dig our potatoes until a light frost has singed the leaves, then we run a plow on each side of the bed, draw down the ridge thus formed in the alley, and throwing all the potatoes from both beds or rows 'nto the central alley; collect them without bruising, and take them in a two ox cart to the potato yard, when they are banked on high, dry land; scraping the circular basis of each bank or pile, clear of mud or trash, emptying the potatoes in these clean circles, and piling them up un'il no more will stand in a coniform shape; cover them round with corn stalks, like a thatched conical roof, so thick and close as not only to exclude the air, but the earth, where they remain until used; one or more hills or banks, containing precisely a week's allowance, thickly covered with earth patted with the hoe. In spring, these banks which have been kept for the table during summer, are opened and, if sprouted, the sprouts are carefully nipped off and the potatoes removed to a dry cellar or loft, spread with dry pine leaves, or any other kind of dry straw, where they will become candied when baked, and far more delicious than when first dug.

I have heard that planting the whole slip potato for seed without cutting is an improvement. I tried it, but could observe no visible benefit or improvement in coming up, vigorous growth or productiveness.

A PLANTER.

Glynn County, Ga., October, 1859.

N. B.—I have tried to save the green vines by collecting them before a frost and banking them like the potato, but they all rotted; and by running a furrow on each side of the bed they are covered up in the alley, where they become a rich mould, so they are not, ultimately, lost, but go to restore to the land the pabulum which has been extracted from it, as you know potato vines contain a large portion of saccharine matter and oxalic acid, which is very fattening to hogs and stock, when fed to them freely while green.

 The Postage on the *Cultivator*, pre-paid, is 18 cents per year.

GUANO ON WHEAT.

EDITORS SOUTHERN CULTIVATOR—As you request me to give you the result of my experiments with guano upon wheat, I shall do so as briefly as possible.

In the fall of 1854, I measured off the land I intended sowing in wheat and staked off each acre, so that I might know, for a certainty, how much guano and cotton seed I used to the acre. On one acre I sowed 100 pounds guano, on another 150 pounds, on another 200 pounds. I then used 26 bushels of cotton seed on an acre side by side with one of the above-mentioned, on another 30, on another 40, and on another 50 bushels. There were several acres manured in this manner and turned under as deeply as possible with a one horse turning plow. I then sowed my wheat at the rate of one bushel to the acre plowed it in, and then cross-plowed it to distribute the seed more evenly. I was thus particular that I might test and compare the relative value of guano and cotton seed, putting the guano at \$3.50 per hundred, and the cotton seed at 12 1-2 cents per bushel.

Now for the result. I told some of my friends in a jocular way, that I would take cost of the guano and cotton seed for my crop of wheat, before it was reaped, and the yield was not sufficient to cover cost, without counting time, labor and rent of land. There was no rain of consequence from the time my wheat was sown until March or April, and in that manner I accounted for my failure. If you recollect we had a beautiful winter, clear, open cold weather; hence, I came to the conclusion that a little water was as necessary as fertilizers, in producing even a winter crop. In the fall of 1855, I did not use any guano, as I had come to the conclusion it would not pay. In the fall of 1856, I concluded I would try it again. I then measured off my land as before; sifted all the lumps out of the guano and pulverized them; mixed equal quantities of charcoal dust out of my coal house with it, and sowed about a sack—say 150 to 160 pounds—to the acre; plowed and cross plowed, as before mentioned. I sowed 12 acres, measured; I cleaned and measured 346 bushels—nearly 29 bushels to the acre on an average. I have no hesitation in saying I had some acres that made 40 bushels per acre. I believe this because it nearly averaged 29 bushels, and I thought there were some acres that made fully twice as much as some others. The acres that were manured with guano were much better than those manured with cotton seed.

In 1857, I prepared my land as above; manured with guano and cotton seed again, and the next spring I measured 282 or 292 bushels of fine wheat, I have forgotten which, from 12 acres.

Last fall I prepared my land as before, and used about 160 pounds to the acre on 12 or 14 acres. The balance of my crop I manured with cotton seed at the rate of 25 to 30 bushels to the acre. I sowed this time 20 acres—12 or 14 manured with guano, the balance with cotton seed. I reaped and measured up nearly or quite 400 bushel, or nearly 20 bushels to the acre! I think my crop this year made fully 20 bushels to the acre; and last year, fully 25 bushels, and the year before fully 30 bushels if it had been carefully saved.

Thus you see, Messrs. Editors, that the old lands in Middle Georgia can be made, with a little help, to produce fair and remunerative crops of wheat, and every planter can raise plenty for his family, and a little to spare to pay for his outlay in fertilizers. Still, I do not consider it profitable to raise a wheat and cotton crop at the same time, only sufficient for home consumption. The sowing of the wheat interferes too much with your picking of cotton; and the harvesting of wheat interferes materially with the cultivation of your cotton.

If you think, Messrs. Editors, the above hastily writ-

ten communication will be of any use to your readers, you are at liberty to use it as you may think proper.

Yours, &c.,
Clinton, Ga., October, 1859.

MIDDLE GEORGIA.

CLARK COUNTY (GA.) FAIR.

The Addresses at the Fair.—The regular annual address was delivered by H. Hull, Jr., Esq., on Wednesday. We shall not attempt a synopsis of this interesting address at this time, as we hope soon to lay it before our readers; and we bespeak in advance a careful perusal, as it contains matter, both interesting and profitable, not only to the farmer, but to all classes. It gave evidence of great research in the beautiful and interesting science of Agriculture, and was listened to with unflagging interest from beginning to end.

On Thursday, Rev. C. W. Howard, of the *Southern Cultivator*, by request, delivered an address of great interest, full of practical suggestions and clothed in refined and touching language. He alluded to Athens as the point from which some of the most important enterprises of the State had sprung. He said the first Railroad meeting, from which had started our great system of roads, was held in Athens. Also, the first cotton manufactory was put in operation within a few miles of Athens. He then made a few practical suggestions in reference to reclaiming old lands and bringing into use our idle forests by seeding them down in grass, and concluded by impressing the people with the importance of beautifying and rendering pleasant their homes, instead of seeking their fortunes in a new and untried country. This portion of his address was eloquent, touching and effective. We hope to afford our readers the pleasure of seeing it entire.—*Southern Banner*.

Addresses at the Fair.—The opening address was delivered by the President of the Society, Col. John Billups. We did not enjoy the pleasure of hearing it; but learn that although unexpectedly called upon, he acquitted himself with great credit, as he always does on such occasions.

The address of Henry Hull, Jr., Esq., was delivered on Wednesday, and those who heard it commend it highly. We were so situated that we could hear but little of it, to our great regret.

On Thursday, Mr. Howard, one of the editors of the *Southern Cultivator*, and who was expected to deliver the opening address on Tuesday, entertained the large audience with one of his efforts. We have been assured by those who heard it that it was a very excellent thing.

These addresses ought to be published and circulated, and no doubt much good would result therefrom.—*Athens (Ga.) Watchman*.

☞ In Connecticut the cultivation of the New Rochelle Blackberry for wine making has become quite a branch, and it is the decided opinion of those who have carefully tested the matter, that there is no other crop which can possibly be made to pay one-half as well. They are as sure of one hundred bushels to one acre as they are of twenty bushels of grain, from which quantity of fruit is made over thirteen hundred gallons of wine, which, if put up in barrels and hurried off to the nearest market, would bring a dollar per gallon and double that in bottle.

☞ A large body of land, 92,000 acres, lying in the countries of High, Randolph, and Pendleton, Va., has been sold for \$60,000 to a Northern Emigration Society, who design settling upon it.

☞ Men long inured to vice, and habituated to folly, afford rare instances of reformation: youth is the proper season.

GRASS FOR LOW, WET LAND.

EDITORS SOUTHERN CULTIVATOR—Having seen in your valuable journal several articles on the culture of upland grass, I have looked with some anxiety to see an article on the cultivation or propagation of swamp grass. What kind of grass is best for wet, swamp land, and the time and manner of sowing or planting it, and where the seed can be obtained, &c.? are things of some importance to me at this time, as I am clearing a large body of swamp land above my Mill Shoal, which cannot be drained in consequence of the shoal rock forming a kind of dam. Any information, through your columns or otherwise, will be thankfully received by a friend and subscriber.

Very respectfully,

M. W. FINGER.

Hall Co., Ga., 1859

Herds Grass will grow in very wet land, almost in running water. In a few years it will convert a bog into ground sufficiently firm to be grazed by cattle or horses. Where the ground is damp, but not wet, it is best to mix Timothy and White Clover with the Herds Grass. Sow a peck of Timothy and Herds Grass each, and half a peck of White Clover to the acre. The seeds can be obtained from the Seedsmen in Augusta. It is now a very good time to sow these seeds, though it will answer very well to sow in February. If you wish the land for pasture, it is not necessary to clear it—grub it well and thin out the useless timber. If you wish it for mowing, the timber must be killed. Your ground will probably be rough; it will be best, therefore, to sow before a rain and not attempt to cover the seed.

DOMESTIC WINE.

THOUGH too late to be available, the present season, we hope the following will be useful to our readers hereafter. It is from a gentleman who has been very successful as a Grape Grower and vintner;

EDITORS SOUTHERN CULTIVATOR—Enclosed, you will find a receipt for making domestic wine. Here, as in France, Spain or elsewhere, wine can be made without sugar; but for this purpose cellars are indispensable, with a temperature as low as 60° Fahrenheit, or less. In making domestic wine, I use sugar, which is, in some degree, converted into alcohol. This gives strength to the must, and prevents its running into the acetous state. The light wines of France, Italy and Germany, will not bear removal from the cellars, except for immediate use. These wines will not bear transportation, and many of them are so tart and unpalatable to the American taste, as to require an addition of a dose of sugar before drinking.

Receipt for Making Domestic Wine.—Pick the ripe berries from the bunches and mash them with the hands, or, if you have a press, pick out all the dry and faulty berries; then mash the berries on the bunches with a pestle (moderately) in a trough. Then throw the bunches in the press and squeeze out the juice, which is called *must*. In the first case, when you mash the berries with the hands, put the whole contents, skins, pulp, seeds, &c., &c., into a jar or keg, open at the top, having a spigot about an inch from the bottom or lower chine. In the second case, when you squeeze the juice with a press, put the clear juice into a keg, barrel or vat, the upper head being open and kept covered with a cloth to keep out insects. In both cases, after the must has remained twenty four hours in the stand, then draw it out, and add

to it two pounds of clarified or crushed sugar to the gallon of Scuppernong or Muscadine, and one pound and a half to the gallon of Warren, Devereux, Catawba and other grapes of sweeter quality; and if you wish to put Cognac brandy in, add one quart of it to ten gallons of the must. Then put the must into jugs, demijohns, kegs or barrels, filling them to within two and a half to three inches of the bung; let it ferment three days, and then fill the vessels with must, kept in bottles for that purpose, to within an inch or two of the bung—on the fourth day fill up to the bung. The scum will then rise to the top, which you can take off daily with the handle of a spoon. Then continue to fill up the vessels with old wine for about three weeks, when the fermentation will cease. Then bung up tight; but, should the fermentation recur and force out the bungs or corks, replace them and bung up very tight, and let it stand till spring or fall, when it may be drawn into bottle.

All vessels and things used in making wine, should be perfectly clean. Keep the wine in a clean, cool place.

D. P.

Pleasant Valley, Ga., Oct., 1859.

LYONS' POWDER!—DEATH TO INSECTS!

A very intelligent lady, of Vicksburg, Miss., whom we have long known as a zealous and successful horticulturist, sends us the following testimony to the value of "Lyons' Magnetic Powder." We think the plant from which this powder is made is growing, in some quantity, in the Propagating Garden at Washington, and we hope the Department will disseminate it as fast as possible:

For the benefit of seedsmen and orchardists I would say, I have found "Lyons' Magnetic powder" efficual in driving insects from seed and away from all places they infest, and have no doubt a few flasksful thrown in the crevices of fruit trees, would drive the pests from their fortresses. I opened my seed box, not long since, to get out some seeds and found my English peas literally covered with the pea bug. I got a small flask of the powder and threw it amongst them and set the box on the floor by me. I soon heard the greatest commotion in the paper bags and saw them leaping shoe in haste, and very soon not one was to be seen. In the same manner, beans, &c., &c., have been freed from them.

I have suffered so much inconvenience from these and other insects, that I determined to communicate this to the *Cultivator*.

"*SOME PUMPKINS.*"—We have it from undoubted authority, and the certificate is now in our hands that Mr. Samuel D. Nelson, raised, this year on Mr. Meshack Boaz's plantation on Swamp Creek, in Whitfield county, 2 1-2 miles above the town of Tilton, a pumpkin 9 feet in circumference, that weighed 239 pounds; another 192 pounds, besides several weighing from 140 to 160 pounds. These pumpkins are of the Golden variety; the seeds from which these pumpkins were raised, were obtained from the Cleveland (Tenn.) Fair. Our Savannah, Augusta and Charleston contemporaries have bragged much the past season about melons, squashes, &c., and now a task is laid for them in the way of pumpkins. Let them reach it if they can.—*Calhoun (Gordon County) Platfrom.*

A MONSTER APPLE.—Our neighbor, John Bulen Siler, has presented us with the largest apple we have ever seen. It is the variety known as the Equinetin in the books, but known better by the local names of "Carter," "Williams," &c. This specimen weighs 1 pound and 13 ounces, and measures 15 1-2 inches in circumference. Beat that, who can?—*Franklin (N. C.) Observer.*

For the Southern Cultivator.
"SAVE YOUR BACON."

Hog-killing times have come! The days
 Of cracklin's, chitterlings, sausages and souse!
 Now "cabbined, cribbed, confined," ye porcine crew
 Their last allotted corn, portentous crunch,
 Or wrapped in rosy, pinguid dreams recall
 The pleasant days of Pighood—waking thence
 To startling terrors of impending death,
 And ominously grunt! or eke, oh fate more dire
 On some high scantlin, hung, between two sticks,
 Their capillary covering gone, and nude
 And white the bare integuments, they wait
 The final dash and last aspersion from
 An old tin bucket or a broken gourd!

Oh! days to childhood dear! when airy hope
 Unfolds her first of many tinted tales
 And bursts her primal b-uboles!

Now bring on salt! yea peppers, black and red,
 With grains of chymic compound, which your clerk
Y'clepes potassae nitras, better known
 To men of sentimental minds as "vil-
 Lainous saltpetre!"
 So rub for life! as one whose earnest palm
 Here clasps the cap sheaf of a twelve month's toil,
 Yea, binds the coming to the closing year,
 And so—makes both ends meet.

TORCH-HILL.

November, 1859.

COTTON CULTURE IN HANCOCK COUNTY,
 Georgia.

Report of five acres Cotton grown by THOS. M. TURNER,
 1859.

| | |
|---|---------|
| No. 1, manured with 20 bushels of cotton seed and 50 pounds of Peruvian Guano. Product, 1806 pounds, at 3 cents | \$54 18 |
| Cost of manure and applying it | 5 00 |
| | \$49 18 |

| | |
|--|---------|
| No. 2, manured with 40 bushels cotton seed. Product, 1574 pounds, at 3 cents | \$47 22 |
| Cost of manure and applying it | 5 00 |
| | \$42 22 |

| | |
|--|---------|
| No. 3, manured with 20 bushels cotton seed and 1 bushel salt. Product, 1450 pounds, at 3 cents | \$43 50 |
| Cost of manure and applying it | 3 50 |
| | \$10 00 |

| | |
|--|---------|
| No. 4, manured with 160 bushels good stable manure. Product, 1424 pounds, at 3 cents | \$42 72 |
| Cost of manure and applying it | 12 00 |
| | \$30 72 |

| | |
|--|---------|
| No. 5, not manured. Product, 508 lbs., at 3 cents. | \$15 24 |
|--|---------|

No. 1, 2, 3 and 4 were prepared in March by turning the land over with the Allen Plow, going about five inches deep, running in each furrow with a large, long scooter. About the first of April the land was run off into 4 feet rows with a large scooter, as deep as a mule would pull it; in this furrow the manure was deposited and at once

covered by running a scooter plow on each side, making a small ridge. About the 10th or 15th of April two more furrows were run, one on each side of the ridge, with a turning plow, at the same time breaking out the middle with a large shovel plow, one furrow, making a large, flat bed.

The cotton was planted about the 20th of April. Process of planting—opened the bed with a block about one foot long, which was attached to a common plow stock; in front of the block was a small bull tongue plow, reaching below the block some three inches, and covering with a block of wood, shaped out so as to bring all the loose dirt to the centre and over the cotton seed. The cotton came up well. When well up, it was chopped out from one to three stalks in a hill, about fifteen inches distance. First plowing with two sweeper furrows in a row. About the 15th of May chopped over again as soon as the plowing was done. Plowed twice after this, each time with a flat sweep, running twice each time; each plowing about 18 days apart. A few days previous to the last plowing, hoed out the land between the hills of cotton, each plowing was as near the surface as it could be done, say one inch deep. Cotton opened early and has all been picked out except a small remnant. Scarcely a boll would be killed by frost if it should frost to night. The land is a sandy pine land,

No. 5 was prepared on the old plan, planted on the old plan, *no manure* on the old plan, product same as on old plan. About half of this yet to open. A frost now would kill it off at least 50 pounds.

cuSparta, Ga., October 22, 1859.

FERTILIZERS.—We are gratified to observe that the use of Fertilizers in dressing the over-cultivated and worn-out lands of Georgia is coming more and more into favor. Those who adopt this system of improvement, in preference to breaking up long cherished associations, relinquishing the comforts of home which they have accumulated around themselves by years of toil, and removing to Texas or Arkansas, or purchasing new land in a distant section of the State, will, in time, find that they have acted wisely, and made money by the operation. The various railroads are doing all in their power to promote and foster this spirit of agricultural improvement, by reducing the freight on all kinds of manufactured and imported fertilizers, well knowing that it will ultimately conduce to their interest, in the increased amount of agricultural products which will be transported to market.—*Chronicle & Sentinel.*

A HOME-SICK GEORGIAN.—A Georgian, who had emigrated to Texas, writes back to his brother at County Line, a rather doleful letter, which said brother publishes in the *Atlanta Intelligencer*, as a warning to those who are going West, to "look before they leap." We copy only the closing paragraph:

"Satisfied, from sore experience, that the 'Lone Star State' can progress as well without me, I long once more to plant my foot *firmly* upon the soil of my native Georgia, and there remain content to drink her sparkling waters as they gush forth pure from nature's fountain—share in her exuberant crops—her variety of productions—her geniality and healthfulness of climate—her accessibility to market—her increasing greatness, and, lastly, let my remains rest underneath her clay. * * * *

Your brother, &c.,

He that giveth beyond his power is a prodigal; he that giveth in measure is liberal; he that giveth nothing is a niggard,

AGRICULTURE IN ARKANSAS.

We clip the following items from a late number of the *State Gazette*, of Little Rock, Ark.:

Agricultural and Mechanical Association of Pulaski County.—Pursuant to previous notice a number of the citizens of Pulaski county met at the Court House, on Monday last, and formed an Agricultural and Mechanical Association. A Constitution was adopted, and most who were present paid the initiation fee of one dollar, and become members of the Association—some paid twenty dollars and become life members.

The association was organised by the election of Wm. E. Ashley, President; A. J. Ward, Secretary; John H. Newbern, Corresponding Secretary; R. L. Dodge, Treasurer, and the following Executive Committee: Wm. Drake, G. W. King, Sam. W. Williams, W. E. Wright, and C. C. Danley.

DES ARC FAIR.—The notice of the Fair at Des Arc is in the outside of this paper. The list of Premiums is large, and the Fair will, doubtless, be one of the best ever held in the State. The occasion will be one of great interest, and we hope all who can conveniently do so may attend.

RESOURCES OF THE COTTON-GROWING SECTIONS OF OUR COUNTRY—Cotton may be said to be the great staple product of the South: but singular as it may seem, planters have not hitherto availed themselves of one-half even of its value. The plant is cultivated for the fibre alone, the stalk and seed being thrown away, or used only for manure. Whereas the seed, which in weight equals even more than three times the weight of the fibre, needs but to be properly prepared, to yield an oil worth from sixty cents to one dollar per gallon, valuable alike for burning and lubrication, and a salad oil far surpassing the best olive oil from Seville.

The subject is one to which we have devoted considerable attention, and we hope to present, from time to time, such facts and figures in relation to it as shall tend to awaken an interest in the matter on every plantation in the South.

It requires but the necessary machinery for hulling and preparing the seed, and expressing and clarifying the oil, to more than double the income from that crop so soon as its value is sufficiently well known to make a market for it.

Several large establishments are now engaged in producing the oil, but the business may be still considered as in its infancy.

Our machinists have yet much to do to supply the demand which, at no distant day, must arise for their skill and labor in that direction.—*Practical Machinist.*

PLOW DEEP.—Mr. Kendall of the New Orleans *Picayune*, says that "if we can have two good seasons out of three, we can get along well enough in Texas, more especially if our farmers will plow and plant their corn deep and cultivate shallow. In a former letter I stated that I had this year made forty bushels of sound, solid corn to the acre, in Comal county. I planted furrows as deep as I could make them with a two-horse plow, covered with a hoe, and cut down the weeds between the rows with a sweep which did not penetrate the ground an inch, and I hoed the corn well, too, and have gained heavily by my extra work."

 The Postage on the *Cultivator*, pre-paid, is 18 cents per year.

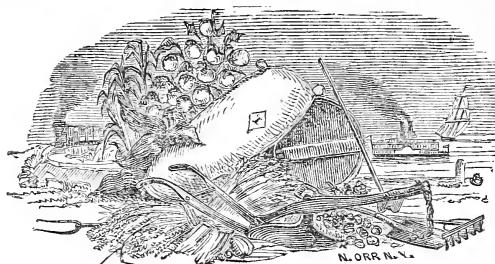
BRABMIN CATTLE.—At the St. Louis Fair, one of the greatest curiosities of the show was the herd of Brahmin cattle, exhibited by C. G. McHatton, of St. Louis. The old bull, "Billy," was purchased of the late Earl of Derby by Dr. Davis, in 1818, and is still in fine condition. In a stall adjoining, was a yearling bull, imported from Bombay, direct, by Mr. McHatton; and next comes a dun-colored heifer, imported by Mr. Husnagel, of Philadelphia. They are curious beasts, all of them. On the back, just at the withers, rises a hump of flesh, curving somewhat backward and downward. The legs are quite deer-like, and evidently made for running. The ears are lopped, like a Madagascar Rabbit's. The color varies from deep Devon red to dun-spotted white. The rump falls, and the hams are very full and round, like those of a fat shoat. The horns are short, black, polished, upright. Mr. Peters of Georgia, who has crossed them with Devons and Durhams, has found many of the grades valuable as milkers. He even states that two cows in his herd gave, each, their 24 quarts per day. When dry, they are said to fatten very rapidly during the hot summer months of the South. He has so much confidence in their value as to have purchased of Mr. McHatton a thoroughbred bull calf and several grade heifers.—*Ez.*

CALIFORNIA TREES.—A grove of mammoth trees even larger than those of Calaveras, which have become so celebrated as California wonders, has been discovered in an unreflected part of Mariposa county. The largest tree in the Calaveras group was one hundred and five feet in circumference. In this more recently discovered grove, a tree was found measuring one hundred and fourteen feet in circumference. The grove contains six hundred of these monsters—none others of them, perhaps, quite that large—but all of them of approximate proportions. These trees grow on the South Fork of the Merced river, about thirty miles southwest of the town of Mariposa. One of the trees, one hundred feet from the ground, has a circumference of sixty-six feet, and a branch measuring eighteen feet in circumference.

UPLAND RICE.—Mr. Wm. Hughes left in our office, yesterday, some fifteen or twenty, well-filled and heavy heads of rice, measuring twelve and thirteen inches in length, which are specimens of a crop grown by him in Liberty county, on pine land, which he assures us is too much worn to be planted in corn without being marred. Mr. Hughes informs us that such rice can be grown on the poorest pine land, and with the same pains bestowed on other crops, good yield obtained.

Judging from the success which has attended his experiments, we need not be surprised to see the culture of upland rice entered into extensively by interior planters, when we will have, perhaps, to quote upland and river bottom rice, as we do now upland and sea island cottons. The specimen left with us may be seen at our publication office.—*Savannah News.*

SORGHUM MOLASSES.—This article, made from the Chinese Sugar Cane has, evidently, become one of the fixed institutions of this country. From what we can learn, a large quantity will be made. The demand for empty whisky, molasses and vinegar barrels is so great that the price has advanced from 50 cents to \$1.25 and not enough to supply the demand.—*Kanawha (Va.) Republican.*



The Southern Cultivator.

AUGUSTA, GA:

VOL. XVII., NO. 12::::DECEMBER, 1859.

CLOSE OF THE VOLUME--OUR PAPER FOR
1st 60.

THE present number of the *Cultivator* closes volume 17, and the year, 1859. Our next volume for 1860, will be printed on entirely new type, and greatly improved in mechanical appearance. In other respects, we deem it merely necessary to say that we shall devote to the paper our best powers, and trust (with the assistance of our practical and experienced correspondents) that we shall be able to furnish each subscriber a journal worth many times the subscription price.

We shall be greatly obliged to our friends for any aid they may give us in extending our circulation. A slight effort on the part of each subscriber would double our list, and make the paper to us much more highly remunerative than it now is.

INDEX TO PRESENT VOLUME.

A very full and complete Index for present volume will be found embodied in this number. By cutting through the top margin of pages 364 and 365, the title-page and index can easily be detached and placed in their proper position at the front of the volume.

GRAPE GROWER'S CONVENTION.—The call for a Convention of Grape Growers to be held at Aiken, S. C., next August, was received just as we were going to press. It will appear in our January number.

To CORRESPONDENTS—We have on file for future insertion, articles bearing the following signatures:—F. J. R.—H. W. Ravenel—A Farmer—A Lover of Game Fowls—J. Van Buren—B. F. Transou—Jas. D. Jarrot, M. D.—P. J. B.—Prof. I. N. Loomis—*Juglans Nigra*—A. B. Luce—C. Le Hardy—G. D. Harmon—M. W. Philips—J. D. H., and several others.

IMPROVED COTTON CULTURE.—See the interesting accounts of the experiments of DAVID DICKSON and T. M. TURNER of Hancock Co., Ga., and do not forget what they have done, before planting time, next spring.

CONDENSED CORRESPONDENCE.

SUPER-PHOSPHATE OF LIME.—Editors *Southern Cultivator*—I noticed in the *Cultivator* some remarks about Super-Phosphate of Lime: I ordered last spring 250 lbs. of each, Rhode's & Hoyt's, and applied it to Corn, applying each kind separately, to about an acre. The result was a large increase over the usual yield, in both cases, with scarcely any difference as to the relative kinds. I mixed each kind with its own bulk of *leached* ashes, and put a small handful of the mixture into each hill, covering it slightly with earth and then dropping the Corn upon it, and covering in the usual manner. I propose to try it again next season on a larger scale. B.

CATERPILLARS IN TREES.—Hang Tobacco stems in your Apple trees about where the Caterpillars are, and they will disappear. Your obedient servant,

JOB GREER.

Bush Creek, Polk Co., Tenn., Sept., 1859.

WORMS IN HORSES.—I have an excellent horse that is thin of flesh, and is hard to fatten, which I think is caused by worms. The animal occasionally passes a worm or two, about four and a half inches long, one half of the worm being about the size of a common earth worm, while the other half is very small. I mention this because there are several kinds of worms, sometimes found in the horse.

I want a remedy for the expulsion of those worms. If any of the readers of the *Cultivator* will give me a remedy in the next number they will much oblige a

SUBSCRIBER.

BUR MACHINE.—Will you do me the favor to inform me who manufactures Bur Machines to separate the cokkle bur from wool. I am running a wool carding machine, and I find the bur is very troublesome here as we have to take them out by hand. I am told there are Bur Machines advertised in your paper, will you inform me what is the cost. I want a first rate one. If you do not know what is the cost, let me know who manufactures the machine. Yours,

J. W.

Will some of our readers answer?

Wherry's P. O., Rush Co., Texas, Oct. 13, 1859.

LOVEJOY'S ANTI-FRICTION COTTON PRESS.

A model of the above press was shown us a few days since by Col. S. DIKE, of Columbia, S. C., Agent for the press.

From the working of the model and the explanation of Col. DIKE, as to the expense of the press and its power and rapidity of motion, we think it must be very generally used, and be of very great advantage to cotton planter. Col. DIKE has letters, speaking in very flattering terms of his press, from several large cotton planters in this and the adjoining States. This press is a new model entirely, having only been patented on the 25th of October, 1859.

FINE FRUIT TREES.—Messrs. P. J. BERKMAN'S & Co., of Fruitland Nurseries, will accept our acknowledgement for a handsome assortment of Fruit Trees, consisting of 25 varieties of Cherries, 17 of Nectarines, 35 of Peaches, and a large collection of Apples.

H.

BACON HAMS.—A writer in the *Southern Planter*, over the signature of "London," says, "My bacon although invariably excellent, was never so good as last year, when I was induced to drop each ham for five minutes in a strong red pepper tea before rubbing with salt."

OUR BOOK TABLE.

BOOKS PAMPHLETS, NURSERY CATALOGUES, &c., received at this Office:

REPORT of the Sixth Annual Fair of the Mobile Agricultural and Horticultural Society, held at Odd Fellow's Hall, on the 4th, 5th and 6th of May; and the Stock Exhibition held at Heller's Garden, 6th of May, 1859. Embracing a Treatise on Grape Culture and Wine Making. Prepared by WM DE FOREST HOLLY. Mobile, 1859. This voluminous and able Report is highly creditable to the gentleman by whom it was prepared, and the spirited and successful Society from which it emanated.

ADDRESS delivered before the "Aiken Fruit Growing and Horticultural Association," July 21st, 1859. By H. W. RAVENEL. A very able and instructive address, some portions of which we have marked for insertion in the *Cultivator* hereafter.

REPORT ON ASIATIC GOATS, accepted and published by order of the Southern Central Agricultural Society, &c. This pamphlet, which is intended to set forth the true character, history and value of the *Cashmere Goat*, contains, in addition to the valuable Report of Dr. BACHMAN, much other information on the subject that will be found interesting to the general reader. It may be obtained per mail from R. PETERS, Atlanta, Ga.

ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS, for 1860, containing practical suggestions for the Farmer and Horticulturist. Embellished with 180 engravings, including houses, farm buildings, implements, fruits, flowers. By J. J. THOMAS, author of the "American Fruit Culturist," &c., &c. This is the sixth year of the publication of this excellent little Annual, and its seems to improve yearly. It is richly worth a dollar, but may be obtained for 25 cents, per mail. Address LUTHER TUCKER & SON, Albany, New York.

THE AMERICAN WATER CURE ALMANAC, for 1860. Price 6 cents per copy. FOWLER & WELLS, 308 Broadway, New York.

CATALOGUE of the Fruit and Ornamental Trees, Plants, etc., cultivated and for sale at the *Bellevue Nurseries*, Canton, Miss., H. A. SWASEY & Co, Proprietors. 1858-9.

CATALOGUE for 1859-'60 of the *Cedar Nursery*, two miles north of Hickory Flat, Chambers county, Ala. By F. T. COOK. 1859.

CATALOGUE of Fruit Trees, for sale by R. C. JOHNSON, at *Atlanta Nursery*, Atlanta Ga. 1859-'60.

CATALOGUE for 1859-'60, of the *Covington Nursery*, Covington, Ga. Second Edition. Conducted by the supervision of HARRY CAMP & SON.

RURAL ADVERTISER, published monthly in Philadelphia, Pa., by PASCHAL MORRIS, at 1 cent per number.

A TREATISE ON DISEASES OF THE TEETH, and the benefits of Artificial substitutes, by Jos. W. WILEY, D. D. S., Newnan, Ga. 1859.

THE RIGHT WORD IN THE RIGHT PLACE.—The Publishers have favored us with a copy of this excellent little

work. It is a small and cheap volume, containing a Dictionary of Synonyms and of Technical terms. Also, a list of Abbreviations and a collection of foreign phrases, with other useful matter. We recommend this as a valuable book of reference in the family. Address FOWLER & WELLS, 308 Broadway, New York.

We return our thanks to Rev. N. M. CRAWFORD, D. D., for a copy of "The Faithful Centurion." This able philosophical enquiry clearly shows that when our Lord said, "I have not found so great faith, no, not in Israel," his words were addressed to a slave holder.

"THE LADYE LILLIAN AND OTHER POEMS." By E. YOUNG. Copies of the above will be sent, postage free, on receipt of One Dollar. Address: E. YOUNG, Lexington, Ga.

The "Ladye Lillian," &c., is a volume of fugitive poems of more than average merit. It is, we believe, the production of a young Georgia mechanic, and is well worth the price asked for it.

AGRICULTURING PUBLISHING---A VALUABLE Work.

THE WHEAT PLANT:—Its origin, culture, growth, development, composition, varieties, diseases, &c., &c. Together with a few remarks on *Indian Corn*, its culture, &c. By JOHN H. KLIPPART, Corresponding Secretary of the Ohio State Board of Agriculture; Member of the Academy of Natural Sciences, &c., &c., &c. One hundred Illustrations. New York: A. O. MOORE & Co.

We are indebted to our kind and good friend, A. O. MOORE, Esq., for a copy of this excellent work, which must hereafter be a standard of reference on the very important subject of which it treats. It is a large and beautifully printed volume of over 700 pages; and it seems to embody all that it is necessary to know respecting the culture of Wheat and Corn, the different varieties, diseases, insects, &c., &c., It will prove a valuable addition to any farmer's library, and may be had per mail, post paid, for \$1.50. Address C. M. SAXTON, BARKER & Co., 25 Park Row, New York city.

By reference to our advertising columns, it will be seen that our old friend C. M. SAXTON and his partners have purchased the entire stock of A. O. MOORE & Co., Agricultural Publishers and Booksellers. We wish the new firm all success in their laudable and useful business, and tender to our friend Moore, our best wishes. Our kindest regards will always go with him in whatever field of labor he may engage. We have known him intimately for years, and always found him a *true gentleman*.

 It is said that five million acres of French soil are devoted to grape culture, producing annually over 800,000,000 of gallons of wine, at an average cost of 10 cents per gallon. From its cheapness it is the almost universal drink of the people. In Paris it is computed that each inhabitant consumes 216 bottles of wine in the year.

 All subscriptions to the *Southern Cultivator* commence with the January number.

EDITORIAL NOTES.—OUR LATE FAIRS.

WE regret that in our November number, which was issued October 20th, it was impossible to give any account of the recent Fairs in Georgia. There are many subjects in connection with these Fairs which are of permanent importance to Agricultural readers. Even at this late day, therefore, our observations at these Fairs may not be devoid of interest to our patrons.

Clark County Fair.—We congratulate our friends in Clarke upon the great success which attended their first Agricultural Fair. We were told that it was resolved in August to hold a Fair, and the Fair was held in October—allowing somewhat more than two months for preparation. During this short period, the spacious grounds were handsomely and securely enclosed—a substantial building of two stories erected, and stalls built sufficient for the accommodation of 140 head of horses, which number was actually on exhibition. As several other counties are thinking of establishing County Fairs, we mention the rapidity with which the Clark Fair Grounds were put in order, to show that the task of establishing a Fair is not so formidable as might be supposed. The sum raised by the citizens of Clark for this Fair, we understand, was about \$3500. It is proposed to effect a union of several adjoining counties to be represented in this as a central Fair. This will be wise measure, if our Legislature will not adopt a similar policy to that of New York, and of which a full account is given in our November number, in regard to County Agricultural Societies. The Legislature ought to give to the counties this assistance. Such assistance would enable almost every county to form its own Agricultural Society and to hold its own Fair. The exhibition of articles at a distant point involves a certain degree of expense. This expense prohibits the poor from an exhibition of their humble yet still valuable articles of industry. On this account, County Fairs are desirable where practicable, and the Legislature ought to make it practicable. But if this cannot be done, then such a union as the one proposed in Clark is expedient. The suggestion may be of service both to Hancock and Cass counties.

The opening Address at Clark Fair was delivered by Col. JOHN BILLIERS, the President of the Society. We were unfortunate in not arriving in time to hear this address; but we heard of it, and always characterized as being perfectly appropriate to the occasion—which is, perhaps, the highest praise which an opening address can receive.

The Annual Address was delivered by W. H. HULL, Esq., of Athens. A synopsis of this admirable address has appeared in the *Field and Fireside*. But we hope that Mr. HULL will accord with the wishes of his friends and allow its publication in full. It is precisely one of those addresses calculated to do good in the present condition of Southern Agriculture. Mr. HULL's manner is very agreeable, his enunciation clear and distinct, and he was listened to with great interest by an intelligent audience.

It would give us pleasure to particularize the articles of merit on exhibition. But this is impossible, without extending these "notes" to an unreasonable length. In the household department, the exhibition was one of unusual excellence—decidedly the best of the season. Some pictures by young artists gave promise of future distinction. We are happy to learn that the friends of these young ladies, are affording to them the opportunity of developing their talents under skillful instruction at the North.

The exhibition of horse stock of the various kinds was admirable. In cattle, hogs and sheep it was inferior. In agricultural products and implements it was good. We were pleased with the remark of our venerated statesman, Ex-Governor GILMER, who, amid the pressure of years, entered fully into the spirit of the scene: "The best part of the exhibition," said he, "is the people, so healthy, so happy and so full of good humor." The innocent festivities of these occasions are certainly not the least of their beneficial results. As a people, we have too few amusements. These farmers' gatherings seem to be the only form of assemblage on a large scale, in which we forget that we are Democrat or Opposition, Presbyterian, Methodist, Baptist or Episcopalian—and, as such, they deserve to be sustained by every well-wisher of mankind.

It was gratifying to observe the interest taken at this Fair on the subject of grass culture. We have but one fear as to this point, and that is, that beginners will expect to make something out of nothing—in other words, that they will expect rich grass to grow on poor land. If they do, they will be disappointed. Let them first make the land good and the grass will make it better, if it be properly treated. We close our notice of our very pleasant visit to our friends in Clark with the expression of the opinion, that their efforts must result in great good, not only to Clark County, but to the whole of North Eastern Georgia.

Warren County Agricultural Society.—While on the way from Athens to Warren on, we were fortunate enough to meet with our old friend, Col. BUCKNER, of Baldwin. The statements he makes of the success of Apple culture in Middle Georgia are of startling interest. The land he plants in apple trees, is the poorest kind of piney woods land, that would not make more than 200 pounds of seed cotton to the acre. He uses no manure, but fills the hole in which the tree is planted with the adjoining surface soil. He much prefers the Shockley or Romanite, as coming most quickly into bearing, occupying the least space, and its fruit being the best keeper. His apples are sold chiefly in Columbus and Montgomery and generally at two dollars per bushel. At this rate some acres of his orchard have yielded him \$1400 per acre. With such facts staring us in the face, shall we suffer our old lands to continue to be put to bearing briars, sassafras, broomsedge or other "vile uses?"

The Georgia Railroad passes in sight of the Vineyard of Mr. Axt, in Telifaerro county. Our rapid conclusion in passing was that, if vines could be successfully grown there, it would be difficult to imagine a locality in which they would not grow. The whole vicinity has been

scoured by the severest cultivation. Yet Mr. Axt has succeeded upon this spot in making a delicious wine and in quantities sufficient to prove highly remunerative. While upon this subject, it may not be improper to mention that Mr. HUBERT, near Double Wells, has, even in this unfavorable year, forwarded to his Factor in Augusta, 600 gallons of excellent wine, the produce of three acres of land. This quantity, at \$3 per gallon, amounts to \$1800. With the wonderful advantages which God has given us in soil and climate, why should Georgians emigrate?

During our brief visit to Warrenton and its vicinity, we had the pleasure of enjoying the genial hospitality of Maj. NEAL, an intelligent and extensive planter of Warren. It is somewhat surprising that not one of Maj. NEAL's experiments with the commercial manures has this year been attended with good results. We walked over one of his cotton fields, the unmanured cotton was quite as good as that which had been manured. The portion manured with Peruvian guano, he states, made no advance after August. The portion manured with HOYT's Super-Phosphate and salt separately, received no apparent benefit. This single failure should, however, by no means discredit the value of these manures—it only shows that we do not perfectly understand them. It teaches that those who are unaccustomed to their use, should commence on a small scale, to avoid the hazard of costly failures. Abundant experience has proved the value of each of those manure to the cotton plant—the exceptions which occasionally occur do not affect the general rule.

To a stranger, it would seem to be a pity that the ravages of the fire, which consumed so large a portion of old Warrenton, had not been more extensive. The burnt portion has been handsomely and substantially rebuilt—the rest is—as it was.

The meeting of the Agricultural Society, which we had the pleasure of attending, was an interesting occasion. The Senator from Warren is President of the Society—we trust that his influence will be exerted among other friends of agriculture in procuring Legislative aid to the County Societies. The lands of Warren county were originally good. Our cotemporary of the *American Farmer* has taught us that we must not say that they are "worn out"—at all events they have suffered severely. Large fortunes have been made here—and where are the owners? Gone with their negroes to the West. It is their misfortune to have done so. Under a different system, they might have made the same annual income, and their lands instead of being left a drug upon the market, might have been a princely fortune to their children. What was their misfortune is now the good fortune of their successors who can buy these still valuable lands at a nominal price. It is our firm conviction that no investment is as certain and will pay as well as in lands in the older parts of Georgia at present prices. They must rise rapidly and largely. The public mind is being awakened to their value. But we will not anticipate remarks, that will be naturally suggested by facts in Hancock farming which we shall hereafter notice.

The Agricultural Society of Warren designs a monthly meeting for the discussion of topics of interest in agriculture. This determination cannot be too highly commended. In the transition state of our agriculture, almost every opinion is unsettled. The mooted points are without number. Hence these monthly meetings can be attended with an interest and a profit, which would have been impossible ten years since. We wish this new effort a grand success.

Hancock Fair.—In company with several other gentlemen, we had the privilege of being the guests of A. J. LANE, Esq., whose charming residence is within two miles distance of the Fair Ground. We regard, with inexpressible satisfaction, every such establishment as that of Mr. LANE. That deceptive, delusive, discontented, unfilial, parricidal spirit of emigration, gets no foothold in such a place. Every thing there is of a permanent character, even to a two-story smoke house of handsomely dressed granite. The same reference to comfort and permanence, we are informed, has been made by other gentlemen in Hancock in their country establishments. Mr. LANE, as rapidly as possible, is putting his farm, of more than 2000 acres in a course of improvement. He has already commenced to thin out a wood of 100 acres to be laid down in grass in front of the dwelling. Three hundred acres of creek bottom, he designs to treat in the same way. These 400 acres will enable him, without other cost than the interest on the land, to manure a large cotton crop annually. Mr. L is, in proportion to his acres, one of the largest stock raisers in the county, yet his investment in stock of all kinds does not exceed \$1 50 per acre. This proportion would make an English or Belgian farmer, who values his land, open his eyes. Yet the county does not average one dollar in stock to the acre. Our friends in Hancock have something to learn on this subject, or the system of farming elsewhere which has brought up land to \$500 an acre is, after all, a great blunder.

Mr. LANE's cotton crop of this year averages about 800 pounds to the acre. Most of the land cultivated by him is very old, some of it having been cleared 60 or 70 years since. Both guano and stable or barn yard manure are used on cotton—the latter has produced the best results. The whole plantation gives evidence not only of progressive intelligence upon the part of the gentlemanly proprietor, but also of attentive skill upon the part of his industrious manager.

The Fair Grounds at Sparta have been much improved since our visit of last year. The Amphitheatre has been so extended that a large concourse of persons can be comfortably seated, while enjoying a full view of the animated scene on the grounds, or listening to the addresses of the occasion.

It is to be regretted that this exhibition was inferior to the last. Possibly, the prominent men connected with it may have been inclined to rest upon their laurels. But Cass and Clark are both close upon their track, and the front place will not be maintained without effort.

The great feature of the occasion was the speech of

Mr. TOOMBS. Much, of course, was expected of him and expectation was fully met. We conceive that the whole cost of this Fair was amply repaid to the county in the impress of valuable practical principles upon the public mind by this eminent gentleman. We will venture to say that the next Hancock planter will look a little foolish who buys corn or bacon, or says a word about bad seasons. Those who heard the speech will understand the allusion. It is much to be regretted that Mr. Toombs' public duties do not allow him time to prepare his speech for the press.

During the Fair week, Mr. DAVID DICKSON, kindly drove us out to his plantation, about ten miles from Sparta. When approaching his place, Mr. Dickson called our attention to a cotton field, of land of similar quality to his own, which had been manured with Peruvian Guano. This land, belonging to a neighbor, had been cultivated with a Scooter plow. The weed was good, but it was destitute of bolls near the top, which, of course, much diminished the yield. On arriving at Mr. Dickson's, we went immediately into the cotton field. His cotton was full of bolls to the very top of the plant. He assigned as the cause of the difference between his cotton and his neighbor's in this particular, the fact that he had not cut the roots of the plant while it was growing. In short, the whole of Mr. Dickson's theory, which has wrought out such great results, may be comprised in a nut shell. *Break up the land as deep as possible. Manure as heavily as possible. In cultivation, keep the surface of the ground clean and loose, but never cut a root of the growing plant.* Mr. Dickson now breaks his land 7 inches deep with one-horse plows. It is his purpose to go much deeper with two-horse plows. His cotton and corn are worked entirely with the sweep. He works fifty-five hands and makes this year 600 bales of cotton, or 11 bales to the hand. Besides his cotton, he will have a surplus of corn and wheat for sale. The character of the land on which this crop is made, may be inferred from the following statement:—Mr. Dickson's father was a considerable land holder. At his death, the Executors determined to sell, at public outcry, as much of the land as would bring one dollar an acre. A portion of the land was sold at that price. The rest which would not bring a dollar an acre was retained, and this land, unsaleable at a dollar per acre, was the nucleus of Mr. Dickson's landed estate. Some of this land, sold at a dollar an acre, he has recently offered \$15 for, and has been refused. This is 1500 per cent. What an illustration of our position, that improved price of land follows improved cultivation. This \$15 is much less than the actual value of the land. Mr. Dickson, at our request, made an accurate calculation of the cost of working an acre, producing 1000 pounds of cotton. His manure costs him \$5 50—all other cost, \$9 50—total, \$15 00. The 1000 pounds of seed cotton are worth, say, \$30—profit \$15 00, which is 10 per cent. on \$150, which is the value of an acre of land, producing 1000 pounds of seed cotton. The whole value of the farm must be diminished by the amount of the dead capital as woodland and old fields, or less productive crops. It is proper to

say that in the calculation of the cost of cultivating an acre of land, a negro and horse was put down at \$1 50 a day.

It may be asked "How does Mr. Dickson get manure enough for such an enormous breadth of land in cultivation?" His stock of cattle consists of 300 head—sheep, between 200 and 300—hogs, 600—mules and horses, 50. The manure from these animals is carefully preserved and applied. Last year he used \$7000 worth of commercial manures—this year, \$9000, and his orders for next year, \$10,000. Notwithstanding this heavy outlay, Mr. Dickson assured us that, counting the present value of his property, from the time when he commenced farming to the present moment he had made 25 per cent per annum, compound interest. Among a party of gentlemen in Hancock, to whom we repeated this statement, it was suggested that there might be an error in the calculations. It so happened that several of the party were familiar with the amount of Mr. Dickson's capital when he commenced and the amount as now given in, and the calculation was verified.

A number of persons were drawn to the Fair in hopes of eliciting information from Mr. DICKSON. To many of them, he was compelled to reply that they would find his system fully stated in the *South Countryman*. And as that paper has ceased to exist, we shall republish, in our January number, a letter of Mr. Dickson's to the editor for the benefit of our subscribers.

Under ordinary circumstances, this particularity of detail as to the private affairs of an individual would be in bad taste and must be unpleasant to the subject. But emigration is depopulating old Georgia—her lands have gradually depreciated in saleable value. Mr. Dickson has shown us that a fortune may be made upon them, and in the process the land be restored to its original fertility. The development of this practical truth is a public benefaction. The thanks of the South are due to this gentleman—and not only to him, but to that remarkable circle of men in Hancock, who, with great intelligence and untiring energy, are conspicuously urging the great truth that old Georgia may be, can be and must be redeemed from sterility.

The State Fair.—Our notes have been so extended that but little space has been left for comments on the State Fair. This is not material, as our Georgia readers have been furnished with ample details from other sources. As a general remark, it may be said that it was successful beyond expectation. Successful not so much as to superiority in the exhibition, as in the increased concourse of people, and in the evident and general determination to insist that our Legislature shall give to our agriculture and the exhibition of its results in the State Fair, the pecuniary assistance which it deserves and demands. The condition of the Fair Grounds is a reproach to the State. A good planter would be ashamed of several of the buildings as cattle sheds, on his plantation. We shall await with great interest, the action of this Legislature. It is to be hoped that every member of the Committee of forty will be at Milledgeville at the proper time, prepared to

act with energy in promoting the greatest interest of the State. If the Legislature will do for Agriculture what it has done for Education and Internal Improvement, many years will not elapse before Georgia will be second to no State in the Confederacy.

H.

LORD BROUGHAM AND SLAVERY IN Georgia.

Our attention has been called to a paragraph which has appeared in a number of newspapers, in which Lord BROUGHAM is represented as saying, in substance, that slavery was forced upon Georgia, while a colony, by the mother country. His Lordship is in error, and the error is one which, in the present state of public opinion as to slavery at the South, may do harm. We are perfectly familiar with the whole facts of the case, having examined the original documents relating to it, in the State Paper Office in London.

Slavery was prohibited in Georgia at its settlement, by the Trustees. The grounds of its prohibition, as stated by the Trustees, were prudential—not moral. General OGLETHORPE, himself, owned a plantation and negroes in South Carolina, at the time that he was at the head of affairs in Georgia. One of the motives in the settlement of Georgia, was to establish a strong force in a favorable position to check the advance of the Spaniards from Florida. Another was to give a home and employment to numbers of white persons in England and on the Continent, who were the victims of misfortune. Another was to introduce the growth of silk and wine, both of which were supposed to require a degree of intelligence not attainable by negroes. The introduction of slaves was deemed incompatible with the ends proposed by the founders of Georgia.

The Colonists very soon ascertained that this prohibition was fatal to them. Carolina flourished; Georgia languished. For years, the colonists petitioned to be allowed negroes. Instead of increasing in numbers, Georgia, in 1740, was reduced to one-sixth of its former population. The person most influential in inducing the Trustees at last to allow the introduction of negroes, was the celebrated GEORGE WHITFIELD. We present an extract from one of his letters, as a pleasant theme of meditation to the Abolitionists. "God is delivering me out of my embarrassments by degrees. With the collections made at Charleston, I have purchased a plantation and some slaves, which I intend to devote to the use of Bethesda." (The Orphan House.)

The Highlanders at Darien, and the Moravians at Ebenezer were averse to the introduction of slaves—they constituted but a small proportion of the population—the rest were most eager to be allowed their use. After years of petition, in the year 1746, the law against the introduction of slaves was repealed. The effect of this repeal was magical. All the interests of the Colony prospered, and its advance was rapid beyond comparison.

The introduction of negroes into Georgia, instead of being a compulsory measure of England, was an act of necessity, suggested by the painful experience of the Colon-

ists. White labor had been tried and found to be practically useless in the climate of our sea coast. The African alone was found capable of enduring field labor under our almost African sun. This chapter of Georgia history contains a pregnant lesson of instruction. It teaches the absolute necessity to us of the institution of slavery, and the insane folly of those who would disturb it.

H.

SAINFOIN.—W. A. C., Cave Springs, Ga.—Our trials with Sainfoin have resulted in failure. We have tried it in upland and low ground, manured and unmanured, limed and unlimed, and in each we stand without success. Sow about 15 lbs. Lucerne to the acre. The seed can be bought of the seedsmen in Augusta, at 35 cts. per lb. A pine log, six to seven feet long, with shafts attached, will make a tolerable one horse roller. You will never regret any reasonable expense you may bestow on the cultivation of Lucerne. Make your ground very rich, very clean, and then break it twelve or fifteen inches if possible, and sow your seed broad cast. The crab grass will come the first year. Mow it as often as it will bear it, so as to prevent the crab grass from seeding. After the first year the Lucerne will take good care of itself. It must not be pastured, but kept entirely for hay or soiling. If your ground is in good order, February is a very good time to sow Lucerne.

SOUTHERN LAND AND LABOR.—The *Wool Grower & Commercial Reporter* of Cleveland, Ohio, contains a very courteous and temperate review of our article, "shall we improve or remove?" The Reviewer supposes that slavery is the cause of the depressed condition of Southern Agriculture. We have forwarded to him our articles on the "Low price of Land at the South" and will be pleased to receive his comments upon them. It is a sufficient answer to his position, to say that throughout the South where the negroes are most numerous, the lands bear the best price, and are most in demand and the reverse. It is not the character of our labor which injuriously affects us, but the erroneous use of it. The agricultural system, of which the *Wool Grower* is an intelligent exponent, would very soon, to use the language of that journal, "make the South a garden of delight." H.

RENEW YOUR SUBSCRIPTIONS--1860!

We desire to arrange our mail books for the next year as early in December as possible, and will be thankful to all our subscribers who will renew at once, and send us as many additional names as possible.

NORTH CAROLINA DRIED FRUIT.—A correspondent writes the *Fayetteville Observer* as follows:

"From the 1st of July up to the 12th of September, there was sent off 277,879 pounds of dried fruit. Five hundred pounds of this quantity was sent to Indiana. About \$1000 worth of dried blackberries have been sent to one man."

The correspondent suggests that dried persimmons might be made a profitable article of trade, as they command a high price. They are as plentiful as weeds in nearly all the Southern States.

"TORCH HILL," AND "BROOMSEDGE."

As a portion of the following was incorrectly printed in our November number, we now give it correct, with the rejoinder of "Torch Hill."

"TORCH HILL!"—A friend, whose criticisms are as genial and hearty as they are (sometimes) caustic—(the well-known and redoubtable "Broomsedge")—in alluding to our pleasant and racy "Orchard Rambler" and rural Poet, "F. O. T." says:

"My compliments to 'Torch Hill!' That chiel burns the brightest light I have followed lately," &c.

Yes!—"mighty little" smoke about that torch—'tis all "fat light 'ud"—sound, "heart pine"—and makes a blaze that will do to "follow."—Eds.

To which "F. O. T." replies:

"By the way, my dear *Cultivator*, if Torch Hill is a 'blaze,' Broomsedge ought to be a perfect *conflagration!* Beseech him to 'fire up.'"

We believe our friend BROOMSEDGE does "fire up" regularly in one of our contemporary journals, in his own State. He is too progressive and utilitarian to hide his light under a bushel. "Long may he wave!"—Eds.

 The Postage on the *Cultivator*, pre-paid, is 18 cents per year.

Botanical Department.

PEAR BLIGHT.

EDITORS SOUTHERN CULTIVATOR—The blight seems to be a peculiar disease, almost confined to the species *Pyrus* proper, as the Quince and Pear. The appearance of blight, which we remark upon other trees, is not exactly the blight; but the work of insects or the immediate result of frost or excessive heat. It is confined to a few branches, and has a character altogether distinct from the Pear blight. I have been forcibly brought to the conclusion that the Pear tree is not fully adapted to the climate of the United States. It is not found there in its wild and primitive condition. It escapes the injuries of most all the insects preying upon other fruit trees, which would not be the case if it were an indigenous product. It keeps its leaves only for a part of the summer; and here, in the South, sends out new shoots, sometimes till the middle of October, and as often as three times during the summer. Only part of my varieties keep their leaves steadily—the balance seem to be puzzled and uncertain, and have no regular periods, beyond the first (March) and the second (June,) shooting season. Blossoming as late as in the present month of October is not uncommon; but confined to some varieties. Summer blossoms upon the same varieties are not rare in the North; and we have a second blooming even in Europe. All things considered, and, despite my preference for the Pear, as a fruit, I must repeat, again, that the Pear tree is the most fastidious, artificial, whimsical tree of all our fruit tribe.

Till we shall have not only Southern Seedlings, but a succession of generations of Southern Seedlings, and good luck in hitting upon the most healthy and vigorous family or variety, we cannot expect as much from the Pear as we do from the Peach and Apple tree. Seedlings come up freely, but die by the hundred, as well in Rochester and Boston as here in the South. Those which escape will make the best parents for succeeding, and, of course, improving generations. The blight affects the seedling or stock often more than the variety grafted upon it, as I found in many cases, where the stock had sent out one or

two shoots just below the graft. These shoots were often struck entirely or partially by the blight, while the grafted part of the tree remained sound.

That the blight is not the work of an insect, is my present conviction; that it denotes and shows a weakness or unfitness to resist certain climatic influences, is my conclusion, based upon long and careful observation, and this is the case as well at the North as at the South. I can only add that I have prevented the further extension or development of *incipient* blight (for there is a blight which I call instantaneous, and another which comes by degrees and sets in slowly) by calling the sap to the sick spot, by means of longitudinal incisions, compelling the tree to go to the healing process, by the expansion of its bark and a fresh supply of sap. I found, moreover, that in larger trees the blight was mostly connected with some hidden, interior lesion, or disease.

I have scarcely any blight among my trees planted *sound* and *young*, and which have started fairly. In severe cases, I invariably cut down the branch or tree below the blight.

I hope to be enabled to say more (if I live) about the blight in another year from now; but I must take my remarks from a neglected, though young orchard, in my vicinity, as I had not over half a dozen blight cases in 18,000 or 20,000 Pear trees in my place, and not so many in my son's Nurseries, close by; and I do neither expect nor wish to study the *case* in our grounds.

It is easier to describe the blight than to find out any remedy for it, unless we look for a preventive in the *general* management of the tree, and all the accessory conditions of soil, locality and climate. I cannot repeat it too often—Pear trees do not grow everywhere in all conditions, in neglected soils, &c. Some varieties are more hardy, and will bear neglect and "adverse circumstances;" but, as a general rule, and as exotics, they want care and some skill to keep them in good condition.

I have alluded before to the unsteadiness of the Pear tree in its periods of resumed vegetation. Here, it seems to me, is one of the greatest causes of the blight. It is not rare to see a pear tree send out blossoms and leaves in October and even in November. The sap must be, of course, active and filling up all the vessels. Suppose a sudden frost setting in, those vessels will be strangled, the sap corroded, and, although the tree does not immediately show the *signs* of the havoc, its next effort to grow and blossom will bring out the extent of the evil.

This atrophy, or paralysis, when slight, can sometimes be overcome by prompting the sap to rush to the spot, by means of incisions (lengthwise), by cutting down part of the injured leader, (as for a limb, that must be, in all cases, removed), and in the most desperate cases, that is when the tree has been struck to its very heart, by removing the blighted parts with the saw or the knife, a few inches below the *black*, as far down as we can find a healthy, bright green fiber and bark. The least brown, dull, color left, will prove a poison to the remainder of the tree and finally will kill it to the very root.

I do not pretend to say that frost or a sudden and violent check of vegetation is the *only* cause of the blight. I only judge from experience that it is *the most common*. Such a stop or check, although not always producing the blight, (in some varieties it will not,) is, in all cases, a serious drawback to the growth of the tree. In such cases and with such varieties, as with many old sorts of the apple, the heart only is affected and death is mediate, not immediate. In apples we call it the black, and that comes out only when the *heart* of the lignum is going to utter decay.

Supposing this to be as I always, long ago, found it to be the case, all we can do is to prevent the anomalous starting of the sap late in the season. We can (in some

measure) prevent that. A tree that starts well, and under all favorable circumstances, in March and again in June or July will have exhausted its powers of vegetation, and accomplished what it was destined to do.

A neglected tree will resume the work whenever some favorable circumstance of climate, late cleaning, late pruning, &c., calls it into new life, and to renewed exertions.

In a soil not drained, or too shallow, or too flat and level, every drop of rain, every variation in the atmosphere will tell, while a well planted, subsoiled or underdrained tree, will resist those slight influences.

Suppose a well planted tree of a good hardy variety, in a well-drained soil, rather on a slightly rolling or uneven ground, well cleaned from weeds, and treated, not with stable manure, but with limes, ashes, phosphates, &c., and left untouched, unpruned, after the month of July. Do you think such a tree could easily be blighted? I have seen thousands in the *well drained* and highly enriched grounds of Wm. Reid and Prof. Mapes, and not a single blight have I found there, in the space of six years; not even among the old varieties. My conclusion has been, of course:

1st. Good treatment.

2nd. Underdraining or thorough and deep subsoiling

3rd. Application of only such manure as will make healthy, firm wood—carbon and not water. Those are, as I stated before, concrete manures, rich in wood-forming matter.

4th. Judicious pruning and no more pruning after July: pruning always making a call to a new flow of sap, as all processes of healing and restoration in all living organisms.

Although these remarks are already too much extended, I beg to add a few facts in conclusion. In 1838, while residing in Europe, I had a lane of fine chestnut trees (planted in 1833) in a most thriving condition. We had no frost till the 6th of January, but foggy, damp weather. The result was that most all the trees, but especially the chestnut and quince trees started, and commenced the ordinary process of spring vegetation, swelling of buds, formation of roots, &c. In the night of the 6th of January a sudden, keen frost set in; and, at the 8th, we had 25° below zero! The consequence was, that my 200 chestnuts, and all my quince trees were blighted from top to root. In the Nurseries, chiefly in the best sheltered localities, thousands of pear trees, besides all the quince stock, were lost, destroyed. This was the blight at wholesale, and applied to other trees than the sensitive pear trees; but blight it was, it all its features and results. The second fact is this: In one of my orchards, where a small spot had a substratum of very retentive clay, I found, after a heavy rain, 6 or 8 holes half filled with water, which kept there till two days afterwards, while all the other ready-made holes had drained themselves naturally. I had no time to underdrain that small spot, being in a hurry to finish that orchard. The result was three blighted trees this year and three or four growers; not another tree among the 3000 in that orchard was blighted.

Certain varieties are more exposed to blight and almost sure to get blighted once in a while; if not all over, at least in some of their limbs. Neglected trees first; old and special varieties, secondly. The Bartlett, Vicar, Gloutmoreau, Madeline, Jargonelle, are among the blighters. A hundred or two among the more recent varieties seem to bid defiance to all causes of blight. Will they be so forty years hence? But, what is the cause of blight among one year's seedlings? Here is a poser. Evidently it is not the frost of the preceding winter; they were not "out" by that time. It is then the influence of a dry, absorbing atmosphere; of extremes of temperatures dur-

ing twenty-four or forty-eight hours of the summer days and a cool night or two.

Let it be what it may, the conclusion will always be the same. As with imported stock and exotic flowers and plants, let us take more care and precautions, and study the habits of those foreigners more close. If blight is scarce or unknown (among the larger trees; I say nothing of one year's seedlings) in well drained, well manured soils, is not there the clue to a prevention? As with other evils, let us be contented with the results of tried experiments, and we can afford, while enjoying the fruits of our labors, to enquire more minutely into the more proximate or remote causes of the disease. But, by all means, let us make deep soils, and resort to high and judicious cultivation. As with the human family, sound and real diets and improvements will prevent many diseases.

L. E. BERCKMANS.

Pearmont, October, 1859.

PRUNING THE GRAPE.

We copy the following brief and practical directions, from the valuable Essay of our friend, A. DE CARADEUC, Esq.:

First Year's Pruning.—In the winter, at any time between the 1st of December and the 15th of March, take a sharp knife, remove every branch except one, and cut that down above the second or third eye of the last growth; break the land with a half-shovel plow as for corn, passing the nearest furrow about twelve inches from the vines. Give them a stake about four feet long; they will, in the spring, shoot out many suckers, and put out eyes where they have no business; cut out the suckers with a long-handled chisel, and cut off all the eyes excepting the two or three you left in pruning: these, as they grow up, should be fastened to the stakes, with bits of soft string, bark or anything else you may have at hand. Keep the land cultivated with plow and hoe, and plant peas between.

Second Pruning.—The second winter's pruning is a repetition of the first, but you must replace the small stakes by good lasting wood, from six to eight feet long. There will be some fruit. The summer's work is the same as above.

Third Pruning.—The third winter's pruning is different; remove all branches or canes, save the two strongest; of these, cut the highest about eighteen inches long, and the other about three inches—the longest is intended for fruit; the latter, which is called "spur," is to make wood for next year. Towards spring, bend this long branch horizontally, and fasten the end of it strongly to a short stake, placed at a sufficient distance. In the West this cane is made to form a complete circle, by fastening the end of it to the foot of the vine; this is called "arching." The object of arching is to moderate and regulate the flow of the sap, in order that it may fill all the eyes on the cane, for if the canes were left perpendicular, the sap would pass the lowest eyes, and rush upwards to the top. But, in our opinion, arching overdoes the business, and the sap, whose tendency is always upwards, will most generally stop at the eyes on the upper part of the arch, and develop them strongly; and those below will put out very weakly, or not at all. While, when the cane is laid horizontally, they all get their share much more equally divided. The vine should also be strongly fastened to the large stake. All who plant vines must plant our Osier willow, whose twigs are superior to any others for tying, although we have made use of the young twigs of Black Gum, or the Wild Willow, and of the bark of young Hickory.

During this summer, the vines will throw out strong branches, which must be fastened to the stakes as they

grow, until they reach the top, when they may be left to hang over. Plow and hoe as usual; plow deep in winter and in summer make use of a scraper. After this, the winter pruning is always, more or less, a repetition of this last; one spur, and one or two bearing canes, according to the strength of the vine. In pruning, let the cut be clean and close, leaving no small ends of dead wood, which will surely injure the old vine.

SOUTHERN FRUIT.

THEY who would anticipate the ripening of the Peach in this climate, must needs depend upon orchards at the South; but few who thus please their palates with Georgia or South Carolina importations are aware that, until within a few years, all peaches eaten at the South had to be obtained at the North. The same was true of apples and pears, and of grapes, to a certain extent. Previous to 1840, little or no attention had been paid to fruit-growing in the South, and nurseries were unknown. The idea was prevalent that the sunny climate of the South was not adapted to the culture of fruit of certain kinds, because they were not indigenous to that region. Experiment, however, has proved satisfactorily to the contrary, and orchards and nurseries for every description of fruit are now to be found in all the more Southern States. One of the largest establishments of the kind is at Natchez, Mississippi. It is believed that upwards of one thousand acres are now devoted to trees that were unknown 20 years ago; and these are trees not only peculiar to colder climates, but to more tropical regions. Of the latter, most varieties are as yet raised only in limited quantities; but it is to be hoped that the present zeal for fruit culture that animates the South will so increase the produce of these luxuries, that out of their abundance they will be able to spare a portion for their less favored neighbors at the North.—*N. Y. Jour. of Com.*

We clipped the above (says the *Chronicle & Sentinel*) from a Southern exchange, in which we found it without comment. The old men of the South, who have feasted for "three score years and ten," and even longer, upon much finer peaches than were ever grown, or can be grown at the North, will be quite surprised to learn that "until within a few years, all peaches eaten at the South had to be obtained at the North!"

This is, certainly, a wonderful discovery of the *Journal of Commerce*, and betrays a great want of knowledge on a subject on which it professed to enlighten the public. The truth is that a man, who has only eaten Northern peaches, does not know what a *really fine peach* is, and never will, until he has travelled South and plucked a peach in its full maturity from the tree and tasted its quality.

THE EFFECT OF CHARCOAL ON FLOWERS.

ABOUT a year ago I made a bargain for a rose bush of magnificent growth and full of buds. I waited for them to bloom, and expected roses worthy of such a noble plant, and of the praises bestowed upon it by the vendor. At length, when it bloomed, all my hopes were blasted. The flowers were of a faded color, and I discovered that I had only a middling *multiflora*, stale colored enough. I therefore resolved to sacrifice it to some experiments which I had in view. My attention had been captivated with the effects of charcoal, as stated in some English publications. I then covered the earth in the pot in which my rose bush was about half an inch deep with pulverized charcoal. Some days after I was astonished to see the roses, which

bloomed, of as fine a lively rose-color as I could wish. I determined to repeat the experiment; and, therefore, when the rose bush had done flowering, I took off the charcoal, and put fresh earth about the pots. You may conceive that I waited for the next spring impatiently to see the result of this experiment.

When it bloomed the roses were, as at first, pale and discolored; but by applying the charcoal, as before, the roses soon resumed their rosy red color. I tried the powdered charcoal, likewise, in large quantities, upon my petunias, and found that both the white and violet flowers were equally sensible to its action. It always gave great vigor to the red or violet colors of the flowers, and the white petunias became veined with red or violet tints; the violets became covered with irregular spots of a bluish or almost black tint. Many persons, who admired them, thought that they were new varieties from the seed. Yellow flowers are, as I have proved, insensible to the influence of the charcoal.—*Paris Horticultural Review.*

GRAFTING THE GRAPE---THE TAYLOR GRAPE FROM KENTUCKY, &c.

OUR good friend, SAMUEL MILLER, Esq., of Lebanon, Pa., sends us the following simple and easy mode of grafting the Grape. It will be seen that Mr. MILLER recommends the work to be performed at an *earlier* season than many writers who have attempted to give us instruction on this point; and as he is one of our most practical and successful Grape growers, it will be well to follow his directions. The information respecting the Taylor Grape is also valuable; and as we have procured some of the vines, we will endeavor to test it fairly in this climate:

FAREN REDMOND—In answer to your inquiry respecting out door grape grafting, I would state that I have tried it at different periods in the spring, but never successfully, except when done very early—before there was the least sign of movement in the sap of the vine. Saw or cut off the stock one or two inches below the surface of the ground, or even three inches; let this depend upon the suitableness of the stock, as it should be taken at a smooth place, if possible, and yet not too near the spreading of the roots, or you will not have room for the split. Use the common cleft mode of grafting, with the exception that where the scion is thick, cut the wedge shape out of the stock, instead of merely splitting. This must be done neatly, so as to make a nice fit. I never use more than one bud, cut one inch above the bud and about two inches below; use no cement; but if the graft is not quite firm in the stock, tie it so as to keep it from moving; then draw the earth around and press closely and firmly around the place of operation, and let the earth come up to the bud, but not cover it. Shade the eye with a little loose rubbish or straw, until it begins to grow.



ILLUSTRATION. The side-suckers must be kept rubbed or cut off to prevent their rubbing the graft. Sometimes I have dug below the collar and cut off the roots where they separate, and set a graft in each root, and have, by fall, a whole nest of plants. I have now eight Taylor vines in one stool. When performing upon the lateral roots, you must cut the graft longer. Out of the Camack, Devereux, New Hanover, Pauline, and one other, last spring, that you so kindly sent me, I lost but one of them. Out of 15 strong stocks operated upon, but three failed.

The Taylor Grape will, undoubtedly, prove a blessing

to the South, if it should not do so well here; but we have high hopes of its success, as it has grown finely this season, without the slightest sign of mildew, which attacked almost every other variety, more or less.

The fruit is medium in size; both bunch and berry a beautiful yellowish white; no pulp; sweet and exceedingly high flavored. It grows enormously, and is a great bearer. From its mature wood, I believe it will prove perfectly hardy here; it is quite so in the northern part of Kentucky.

S. M.

Calmdale, Lebanon P. O., Pa., 1858.

A CHAPTER ON HYBRIDIZATION.

EDITORS SOUTHERN CULTIVATOR—Natural Science has long since discovered the analogy betwixt the animal and vegetable kingdom, in the sexual organization of each of these genera, and that at their creation, in common with man, and all animal life, the degree of the Almighty was that “male and female they should be created!”

Heretofore, until recently, the discovery of these facts has been to the Naturalist but pleasing manifestations of Divine wisdom in his arrangement for the perpetuation of vegetable existence upon the earth. Of late, however, in this, our utilitarian age, the skillful Pomologist and Horticulturist have seized upon this discovery in the way that an ingenious engineer would avail himself of waters of some impetuous river, direct it to his wheels and set his machinery in motion; so the Pomologist avails himself of the discovery of the fact of hybridization amongst trees and plants of the same genus, but of different species, and thus are producing some of the most beautiful varieties by cross fecundation, and are, in this way, adding, daily, new contributions to the floral and pomological resources of the country.

Heretofore, until recently, the origin of all our existant fine varieties, have been produced by accidental hybridization where the staminate and pistilate portions of the flowers of two plants of the same genus came in contact and thus produced a mongrel, and in some cases the mongrel or hybrid is greatly superior to either of its parents; but in nearly every instance an improvement, verifying the sentiment of Dr. Darwin—

“And interweave at length,
The mother's beauty with the father's strength.”

If an accidental hybridization has produced so many and such extraordinary varieties of fruits, have we not strong ground to indulge in a hope that the day is not distant when the scientific and skillful Pomologist will direct the operations in the hybridization of fruits and plants, as in effect to be as wonderful as the result of that hybridization which, in the antedeluvian world, took place in the race of man, where “the sons of God took them wives of the daughters of man, and there were giants on the earth in those days, and the same became men of renown?” We cannot well command our risibles when, in fancy, we anticipate the aspect of that monster Grape that will be produced by the hybrid cross betwixt the Hon. A. G. Semmes’s eight pound bunches and the Mammoth Grape Prof. C. D. Smith and ourself measured yesterday, the single berries of which girted three and a quarter inches round.

We have spent the summer and this much of the autumn, in hunting and examining after fine varieties of native hybrid Grapes; but, taking the highground at our our out-set, to reject every variety that, in some of its qualities, was not superior to the Catawba or Isabella, have, consequently, had to taboo all of our 42 discoveries, save 4 varieties. The possession of these, however, will compensate us for all our toil. We are noted for our modesty, and in imitation of our beautiful grapes that we

found in their deep solitude, blushing in their virgin purity, we will not brag—else a tale we could tell that would start tears of joy in the eyes of a Pomologist—at all events make his mouth water!

We have much more to say in relation to interesting cases of hybridization, which have fallen under our own observation, but lack time, now, to pursue the subject any further.

Respectfully, &c.,

SILAS McDOWELL.

Franklin, N. C., September, 1859.

ORCHARD RAMBLES.

EDITORS SOUTHERN CULTIVATOR—In my more extended rambles, I sometimes pervade a district of country known from certain peculiarities of its soil and citizens as “Red bone.”

A rolling surface, remarkable for the natural grace of its undulation, and for the immense variety of “poor land” which it circumscribes, is as much as I need say, at present, of the former.

Of the latter, there is notably to be observed a certain outward “elfishness” of appearance which does nothing more than justice to the inner and almost superhuman shrewdness which it indicates and typifies.

To a physician he is remarkable for the equal pertinacity with which he invites disease, and resists death! and I submit that there is nobody but a physician who really knows anything about the man. He takes such pains to fortify himself against anticipated contempt that it requires years of patient service even on the part of his physician to get through his bulwarks so far as to give any account of him. To my brethren of the medical profession, who have each of them, a similar scope of country in which to air their benevolence, I look for aid in the important measure hereinafter indicated, to elevate the subject, and to do the State some service.

I reject, with the ignominy it deserves, the calumnious record which refers the origin of Red-bone to the primitive penal settlers of this colony.

I have myself traced his pedigree back to the illustrious “Ransy Sniffle,” and would be content, with the consent of that gentleman’s biographer, to rest on him as the progenitor of the race. I reserve, however, a private opinion, highly fortified by unmistakable marks of pride and extravagance, that Red-Bone is, and, of right, ought to be the lineal and legitimate descendant of the last of the old Roman Emperors.

Together, they (the soil and citizen) annually engender a limited crop of the usual staples. With a little better success in raising children, chickens and chickasaw plums, and an occasional bucket of huckleberries for export, they manage so far to keep the wolf from the door, that I have never known one of them to die of hunger or

ask an alms.

to I confess that I have found so much good in these people that I have a sanguine hope of gradually developing something better.

Their pride needs tact; their extravagance sorely needs a tutor (I believe that “What’s-his-name,” who cooked the allies into Sebastopol would conquer Austria by what is wasted in the poorest cabins of Georgia) and they, above all, need a substitute for the cotton crop.

What this substitute is to be, the nature of the soil to which they instinctively flock, very clearly indicates. It is good for nothing in the world but fruit. Let us hope that the rising tide of Southern Pomology shall not leave these unregenerate “poor shoats” of freedom, any longer in the category of the great unwashed.

Strawberry culture is already spreading among them in the neighborhood of our towns. The Peach and Pear can travel farther. Let them travel!

L.

Torch Hill, October, 1859.

"FRUIT TREES FROM THE NORTH," &c.

EDITORS SOUTHERN CULTIVATOR—In your October number, I notice a communication from H. E. Hooker, Esq., of Rochester, N. Y., in reply to an article of mine in your July issue.

At the beginning of his third paragraph Mr. Hooker says: "The statement that late keeping varieties of Apples for the South, cannot be procured from the North, is, in the main, correct; as those varieties are not much known out of the Southern States," &c.

Thus, you see, he clearly admits one of my strongest positions; and it is unnecessary to dwell any longer on that point. The remainder of Mr. Hooker's article does not seem to call for any special reply from me. It is, generally, to the effect that a young tree grown at the North is just as good for the South as one grown in our own climate—a statement which all experienced Southern fruit growers know to be incorrect—and farther, that Rochester, N. Y., is a peculiarly favorable spot for the production of Nursery articles, and that a heavy amount of such articles is annually sold therefrom to nurserymen "from Maine to Georgia," &c. I admit this proposition, and, to a certain extent, regret it, as far as Georgia and the South are concerned. It is really a shame that we do not raise our own trees, (which are far better adapted to our wants,) and keep our money at home.

I have no particular cause of controversy with Mr. Hooker. I believe him to be an honorable gentleman and a fair dealer in all respects, as are many more in the same business, at Rochester and elsewhere in the North. I believe, also, that if these gentlemen had trees adapted to our wants, that they would be glad to sell them to us; and I fear that their desire to sell, at all hazards, sometimes slightly clouds their judgment. But, the truth simply is, that, with few exceptions, they have not the kind of trees nor the varieties we most need and desire—that it is to our interest, in every way, to purchase *Southern raised trees of Southern varieties*, if possible; and that, therefore, I am happy to believe that there will not be, hereafter, so many orders sent North for fruit trees as there have been heretofore.

Respectfully yours, MALIC ACID.
Home Place, Ga., Oct., 1859.

DEVEREUX, LENOIR AND OHIO GRAPES.

EDITORS SOUTHERN CULTIVATOR—In the last number of your journal you say: "The nomenclature of our Grapes needs a revision, as many single varieties are known under, at least, half a dozen names." This is very true; and I propose to assist you in making the revision, and to begin by correcting what I suppose to be a mistake of your own. It lies in your remark that "the Devereux, Ohio and Lenoir are nearly, if not altogether, the same."*

Since the Report of the Committee of the Pomological Society, made two years ago, I have considered the name and description of the Lenoir as settled. We have that Grape in Atlanta, bearing the description which they gave it.

We have the Ohio, also, which corresponds with the description given by Longworth, Downing and the said Committee. Ten years ago, I obtained that Grape from the Nurseries of Mr. Downing, and afterwards, when Mr. Thurmond established the Downing Hill Nursery, at this

place, he got the same of me. So we cannot doubt that we have the genuine Ohio, or Cigar Box Grape.

If you will turn to the descriptions of these two Grapes, will you find them to be entirely distinct varieties. The Lenoir has a smallish entire leaf, not lobed, but plainly dentate; and the bunches of fruit are rather small and very compact. The Ohio has a large leaf, deeply tri-lobed and the bunches are always very loose and long, sometimes measuring over a foot. It has another peculiar characteristic which I have not seen noticed—the fruit being quite sour long after it has turned black, but sweet and very pleasant when fully ripe.

The Devereux appears, from articles long ago published in the *Cultivator*, to have been found near fifty years ago in Hancock county, by Samuel M. Devereux, and as such most long and favorably known. Mr. J. Crawford says it "is scarcely distinguishable from the Warren." But the said Committee seem to have settled the question that it is identical with the Lenoir. At the same time, however, they have introduced another Devereux, of an entirely different kind, received from Mr. Peters, of this place, who got it of Dr. Baldwin, of Alabama; yet they give it the same origin as the old Devereux.

Supposing that to be the simon-pure Devereux, I procured a root from Messrs. Peters, Hardeau & Co., which has grown two summers with me, but has not borne. Soon afterwards I learned from them that they had found, by comparison of fruit, leaf and vine, that this new comer was identical with the Ohio. I have not seen the fruit, but have carefully compared my vine with the Ohio, growing beside it, and can perceive no difference between them.

This fact may enable some of your readers to trace the origin of the Lenoir. Perhaps Dr. Baldwin, who sent it here as the Devereux, may throw further light upon the question.

WINDSOR.

Atlanta, Oct., 1859.

ORCHARD RAMBLES.

EDITORS SOUTHERN CULTIVATOR—Mr. Van Buren very correctly answers, in the *negative*, the question whether the Peach, under the shortening-in process, will not become unduly thick in the head?

As Mr. Downing and others have recommended a supplementary thinning-out, I would notice the very beautiful provision of Nature which renders it unnecessary.

The weight of the fruit sufficiently opens the head of the tree.

How it will be with that curious production the "Pyramidal Peach" when it begins to bear, is an open question. Perhaps, like some of the Pears and Apples, the centre of gravity will so nearly coincide with the centre of motion that a condition of stable equilibrium will be the result.

There is no substitute for the shortening-in of the Peach. Particular varieties and different conditions, as to thirst, may demand important modifications as to its application; but, as a general rule, unless a gentleman wants to gather his fruit as the "Deacon" smashed "the one-horse shay,"

"All together, and nothing first,"

he had better not neglect it!

It rests almost entirely with the cultivator whether the Peach shall remain the ragged Witch of Endor that it is, or become the veritable King Solomon, in all his glory, that it ought to be.

To one who has never seen it, I would say that the properly-cared-for Peach at the age that it ordinarily "gives out," is, with its short and polished stem, its sturdy branches, its softly-tinged shoots, its broad and glossy foliage, and its magnificent globes of cream and crimson, perhaps the most beautiful object which a July sun shines upon!

Torch Hill, 1859.

* We should have said that these varieties were much confused and by many considered identical. We thank our correspondent for setting the matter right.—EDS.

For the Southern Cultivator.

 The following quaintly-beautiful summer lyric has, through our own oversight, got sadly belated. We are afraid "Ye Bumble Bee's" wings will be nipped by ye frost, if we keep him any longer. So let him buzz on the sunny side of the reader's fancy:

YE BUMBLE BEE.**IN YE MACARTNEY ROSE.**

Since Solomon was king—

Since eggs were voted eggs,

I have not seen a thing

So happy in the legs;

So very grave a thing

So happy in the legs!

As glad as he is wise,

And both at once, all over!

As one whose *duty* lies

With his *delight*, in clover!

Who loads his happy thighs

By simply rolling over.

Plunge me in yellow bliss

Ye gods! and let me see

The ecstacy of this

Ecstatic Bumble Bee!

For bliss in business

I'd be a Bumble Bee,

In some great orchard, which

Should cause it come to pass,

A man grew fat and rich

By rolling in the grass;—

By nibbling at a Peach,

And rolling in the grass.

T

Torch Hill, Ga., July, 1859.

PEACH BRANDY---DISTILLATION, &c.

AN esteemed correspondent in Louisiana asks the following questions, and requests some of our readers to answer them in the January number of the *Cultivator*:

1st. What is the best alembic for the distillation of peaches and wine (for the use of a planter). I do not allude to the large apparatus used in expensive and constantly working establishments?

2nd. Is there any machine to mash the peaches without breaking the stone?

3rd. Is there any machine to separate the stones from the mobby after fermentation?

4th. Is the peach wine or peach beer alone put in the alembic for distillation, or do they put usually the whole together, the juice, mobby, stones, &c.?

5th. What an alembic of 50 gallons would distill per day?

6th. Give me the address where I can have made the alembic, presses, &c., that are needed for distilling? By so doing you will oblige

*

 When the curious or impudent would pick the lock of the heart, put the key of reserve in the inside.

SAVE YOUR MANURE.

 It rouses our agricultural indignation to see a farmer throwing away all the manure about his lot and stable. For throwing it out in a heap, for the sun, air and rain to ruin, is truly wasting it.

We propose a plan for taking care of it, which if faithfully followed, will enhance the value of the farm of every farmer in the country.

Build a good shed, plank up the ends and sides some four or five feet. Then dig out the dirt within the enclosure some three feet or more, taking off the sides and ends, so as to make it slope inwardly from all sides, looking, when completed, like the half of a large hog-head buried. Now, in this hole, under this shed and within these planked up sides, throw the manure from your stables and hogpen, the wet straw and leaves from the lot, the refuse ashes from the ley-gum, the sweepings of your yard, &c. On this, as convenience and opportunity will permit, pour all your strong soap suds, which will aid fermentation, and our word for it, you will have a manure heap worth its weight in guano or anything else, as a fertilizer. Try it.

 Results of observation in a section of the State where the creeps more rarely fail than any other, and the concurrent testimony of planters in other sections, have brought us to the conclusion that the yield of this season will be less than that of the last by over one hundred thousand hogsheads.

The crop last year was about 440,000 hogshead.

BAULKY HORSES—A writer in the *Cotton Planter*, gives the readers of that journal his method of obtaining a pull out of an obstinate horse, and also claims to be the originator of the plan. He says:

"Take a small rope, (a plow-line for example,) double it, make a loop of the double end, and draw it snugly around the under jaw of the animal, just behind his front teeth, with the loop underneath. Throw the loose end over your shoulder, and 'walk in the way he should go,' holding fast and pulling steadily and firmly. Don't be troubled about him, for he will follow without fail, after he has discovered how you have 'got him.' This will, also, compel an animal to stand quiet to receive the bridle or collar."

HOME.—How touchingly beautiful are the relations of home! There each is bound by an electric chain that seems to pass to all hearts in the family group, so that one cannot enjoy that which is not participated in by all. If one heart is oppressed, all sympathize; if one is exalted all must share the happiness—it is in the seclusion of home that the aching heart is soothed—where the oppressed are relieved, the outcast reclaimed, the sick healed, or, failing, the tear of sincere sorrow drops from the mourners' eyes when the loved ones are gathered to their fathers.

"Be it ever so humble there's no place like home."

 Nature has strange ways of doing the most beautiful things. Out of the cozy earth, the mud and rain of early spring, come the most delicate flowers, their white leaves borne out of the dirt, as unsoiled and pure as if they had bloomed in the garden of paradise.

 There are times when none of us would be found at home by any friend if it were not for the fear of being found out.

COTTON SEED HULLER.

CLOSE upon the heels of Henry's Cotton Spinner, we have another invention, well calculated to benefit cotton planters generally. We allude to a "New Cotton Seed Huller," the result of the inventive qualities of a gentleman of New Orleans—destined to become of universal adoption on cotton farms and plantations, and to add much to the agricultural wealth of the cotton-growing States, and to proportionately increase the incomes of the planters. Relative to this invention, the New Orleans *Picayune* says:

The value of cotton seed as an oil producer has long been known; but the great obstacle to the conversion of this waste product into a merchantable article has been the impossibility of perfectly hulling the seed.

This difficulty has lately been removed, and the entire amount of the seed in the cotton region can be made more valuable to the planter than an equal number of bushels of the best Northern or Southern wheat. The addition to the value of a cotton crop by the invention of the means of hulling the seed, is so large that the statement in figures would startle the planting community. It is, however, within bounds to say that the hulled seed will more than pay the entire expense of the plantation, on which it is produced. Orders are now in this city for hulled seed at \$1 20 per bushel, and it is impossible, for years to come, to supply the demand for this article that now exists for export.

A gentleman of this city has lately invented a new application to Felton's Patent Grist Mill, which converts it into a perfect cotton seed huller. The mill is portable and cheap. The attachment is simple and durable, and does not interfere with the use of the mill, when desired as a corn meal mill, or a corn and cob crusher for the use of stock. The mill is so simple in its construction, so indestructible in its material, that it can, with difficulty, be injured, and will stand constant use for years without serious wear. With the cotton hulling attachment, it delivers the hulled seed entirely free from hulls, a portion of it nearly whole, and none of it ground up into meal. The hulls are carried off by a bolter and deposited by themselves.

No higher price has been attached to the mill on account of the new service to which it can be put, the price of the attachment only being added.

By this fortunate invention the planter is now enabled to hull the seed of his crop at the same time and by the same power that his cotton is ginned; and the refuse of the field becomes more saleable at about half the price, weight for weight, than the ginned cotton itself.

We have seen the huller in operation, and can vouch for its performing its work with certainty and effect. Nothing could be added to improve its operation, the hulled seed being delivered as clean as wheat from a fanning machine. We call the attention of the planting community to this invention, which they can, at any time, see in full operation at the establishment of Messrs Vose & West, Nos 143 and 145 Magazine street, in this city.

The running of steam engines on common roads, though new in this country, has been tested in England. There is an engine running daily from Manchester to a colliery, eight miles distant. The road is undulating, and has several sharp curves, yet the engine draws five four wheeled wagons, containing thirty tons weight.

Society seldom forgives those who have discovered the emptiness of its pleasures, and learned to live independent of it and them.

ADULTERATION OF AMERICAN COTTON.—A telegram in the last foreign news announced that a meeting had been held in Liverpool to consider the subject of the adulteration of cotton shipped from the United States. The Liverpool *Post*, of October 6, gives the following report of the proceedings:

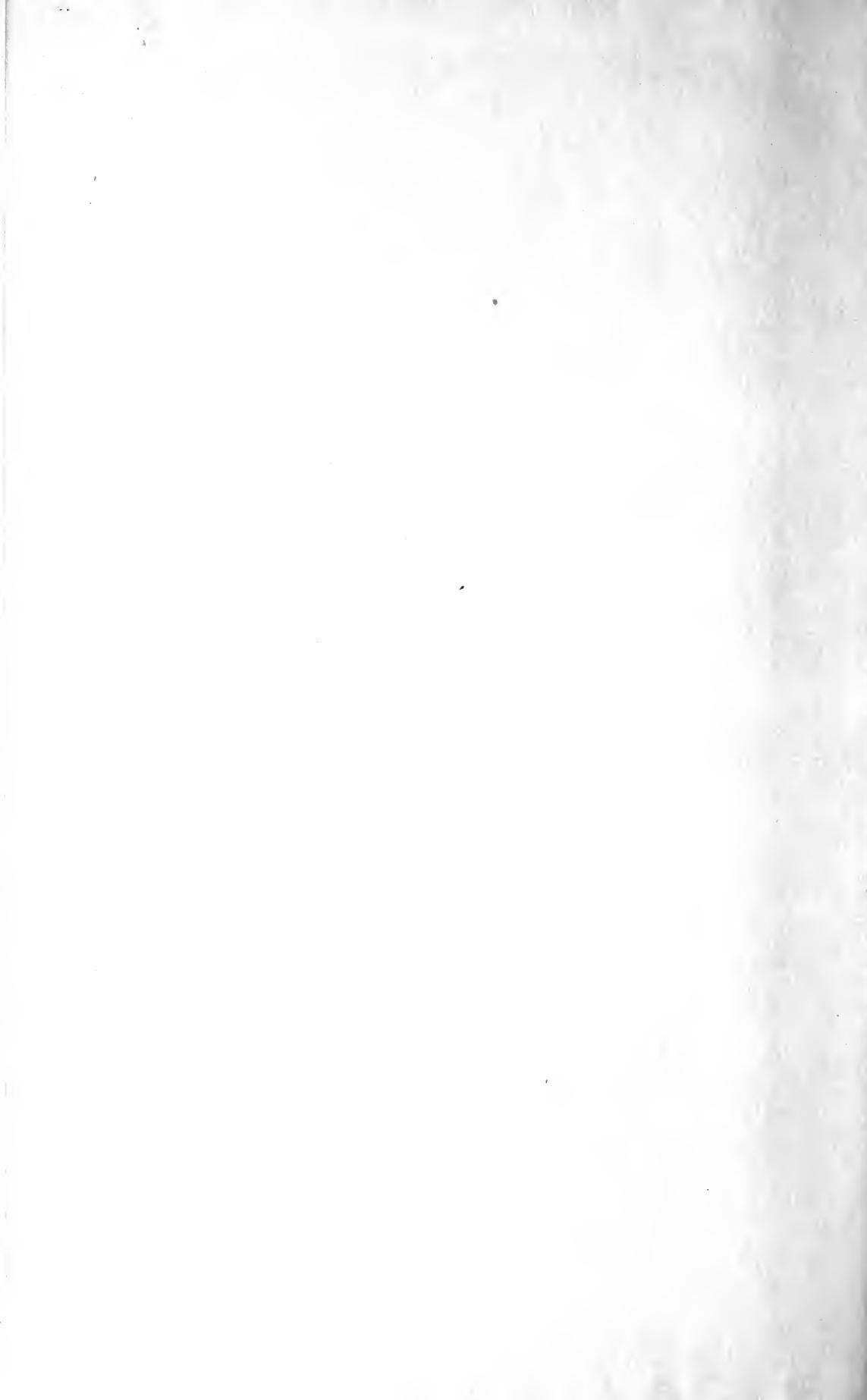
A deputation from the Liverpool Cotton Brokers' Association met the American Chamber of Commerce yesterday, and laid before that body a memorial, pointing out the great extent to which the practice of mixing sand, dust, stones, &c., with the American cotton was carried on, and requesting the Chamber to use its influence on the other side of the water to check so dishonest and injurious a practice. The memorial stated that of the two millions of bales this year received from the United States, the sand and dust would form, in all probability, a portion equivalent to the weight of 100,000 bales; and that the admixture caused a depreciation in the value of the cotton greater than was proportional to the sand and dust, owing to the unwillingness of the spinners to subject their operatives and machinery to such injurious influences. After a full discussion of the subject, during which the Chamber cordially recognized its importance and the necessity of measures being taken to repress the evil, it was decided to print the memorial of the Brokers' Association, and forward copies to all the commercial associations of the United States, in the hope that publicity would put down a practice so justly complained of.

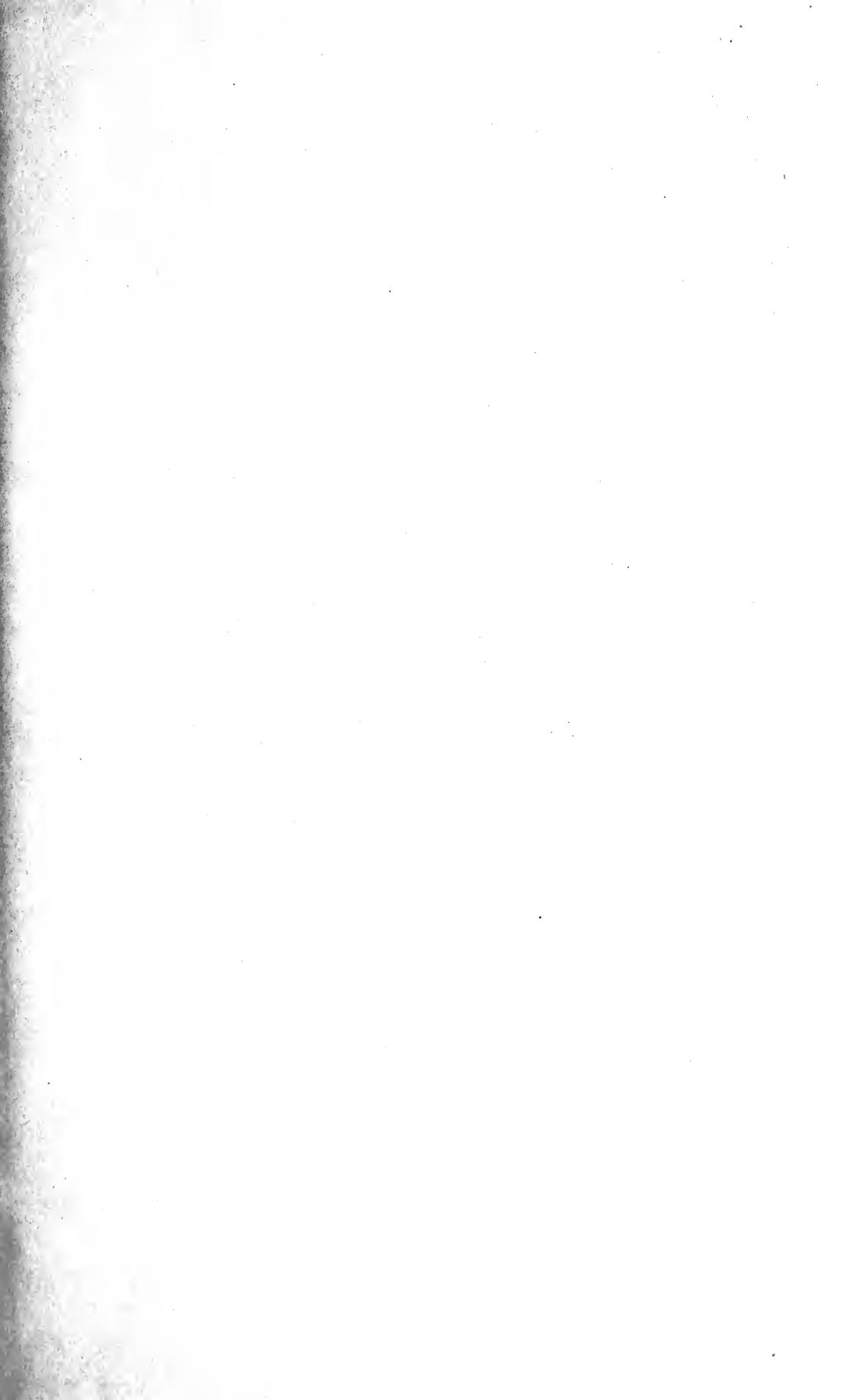
SUGAR MAKING IN LOUISIANA.—We are informed that a number of our planters have commenced rolling. The cane is still very backward, and a good old-fashioned rain would be very acceptable at this time. We have made inquiry as to the yield of the cane on the plantations now engaged in sugar making, but, so far, have been unable to gather any definite answer, but from the size and general green appearance of the cane, we are inclined to the opinion that it is not at all satisfactory. We learn that the planters, generally, in this section of the country, will commence grinding on or about the 20th inst., even though the cane should not justify it, as it is considered better policy to lose at the start, than to run the risk of losing by an early frost.—*Planter's Banner*, Oct. 8.

RETIREMENT OF MR. BROWNE FROM THE PATENT OFFICE.—In consequence of the limited appropriation by Congress at the last session for agricultural purposes, and the comparative small amount on hand at the commencement of the present fiscal year, arising from liabilities previously incurred, it became necessary to reduce the expenses of the Agricultural Division of the Patent Office. Mr. Browne, who has long had charge of this division, was informed that, in consequence of the small amount of the appropriation unexpended, it had been decided that his salary, unavoidably, would be reduced, or the office which he had held be discontinued; and that, in the event he would not be willing to remain on these terms, he was requested to see that the engravings for the next Agricultural Report, already in progress, were properly executed, and to contribute one or more articles for said report. Of the two alternatives, Mr. Browne adopted the latter, and the unfinished agricultural business of the office is to be performed by the remaining temporary force.—*Constitution*.

By taking revenge a man is but even with his enemy; but in passing it over he is superior.

The passion of acquiring riches in order to support a vain expense, corrupts the purest souls.









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